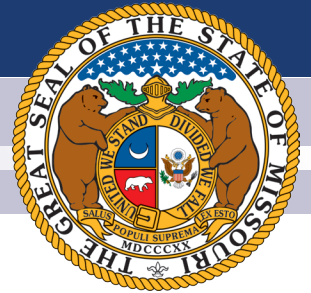


State of

# INFORMATION TECHNOLOGY

in Missouri



2012

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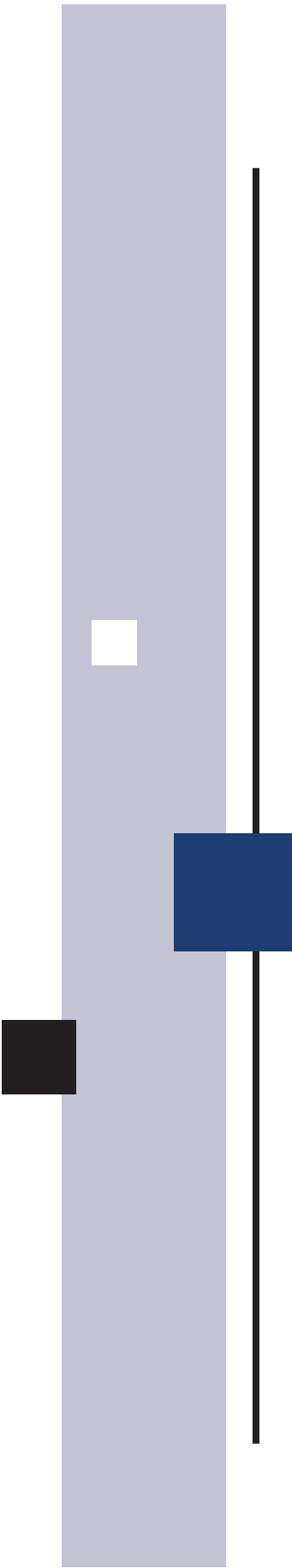
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# Introduction

This report, the *2012 State of Information Technology in Missouri*, is provided by the Information Technology Services Division (ITSD), a part of the Office of Administration (OA).

ITSD is the information technology unit for nearly all of the state government agencies that are under the umbrella of Missouri's 14 consolidated departments. ITSD also provides network services to all other Missouri state government agencies.

ITSD works with state agencies to answer Gov. Nixon's call for more effective and efficient government operations. Gov. Nixon has also emphasized the importance of delivering more online services and higher quality websites to Missouri's citizens.

ITSD's functional alignment has allowed the State to reduce average costs for a number of services. These functional alignments enable ITSD to leverage knowledge sharing and collaboration among IT professionals for improved service. Solving problems once for the enterprise as opposed to numerous times for individual agencies is obviously a good thing.

ITSD is also undertaking several technology initiatives with vendor-partners that will create efficiencies in state government. Among these initiatives are Unified Communications, Mobility, Server Virtualization and Desktop Virtualization. ITSD is investigating how it may be possible to leverage the "cloud" to generate efficiencies and

increase the effectiveness of state government.

The report includes an overview of each of ITSD's functional areas and also a discussion of each of the 14 web and application development teams that support the consolidated departments. The report does not provide a complete discussion of any organization's technology systems, 2012 accomplishments or pending projects. That is beyond the scope of this document, however the following report identifies cost savings of \$1,255,468 and cost avoidance of \$369,290 during calendar year 2012 for projects by ITSD for specified agencies.

Web and application development by ITSD and contracted state vendors is undertaken to support the missions and specific business objectives of those agencies, and any discussion of that development should include an understanding of the agency. In addition, success in web and application development can only be achieved through strong partnerships and collaboration between ITSD and agency stakeholders.

There are information technology units outside consolidation that provide support for the Department of Transportation, Department of Conservation, certain elected officials, Missouri's Courts and Missouri's Legislature. These non-consolidated units provide valuable IT services to the State of Missouri, but have not been included in this report.

# End User Support

End user support is provided so that state employees can resume the normal course of their duties in the event of computer malfunctions, lost passwords, and other abnormalities. End user support is also provided when technical assistance is needed during special events like presentations and conferences. ITSD's End User support group (ITSD-EUS) provides a wide range of IT assistance to employees of consolidated agencies within state government and some public entities that are affiliated with these agencies. State employees can make an IT support request by utilizing the online "helpdesk" ticket system or calling the Tier I call center. Problems are resolved by Level I and Level II technicians.

## Critical Services



### Device Management

The routine needs of over 41,000 traditional workstations must be managed by pushing out Windows updates, virus definition files and software to computers throughout the state. In addition, iOS devices like iPhones and iPads are managed to maintain the integrity of the State's data and network.



### Level I Helpdesk

The Level I helpdesk support provides prompt response and issue troubleshooting often in cooperation with the end user via phone. Level I support staff are able to employ remote access support tools to increase productivity and also provide training to the customer. Level I technicians are trained to escalate issues that cannot be resolved quickly to the Level II support team.

### Level II Helpdesk

In all instances, Level II staff will attempt to resolve issues remotely, maximizing work productivity. Level II field staff, located throughout Missouri, must often be physically present with the customer to provide effective service.



### E-Waste Disposal

ITSD-EUS coordinates the disposal of electronic waste to safeguard State data.



### Printer Management

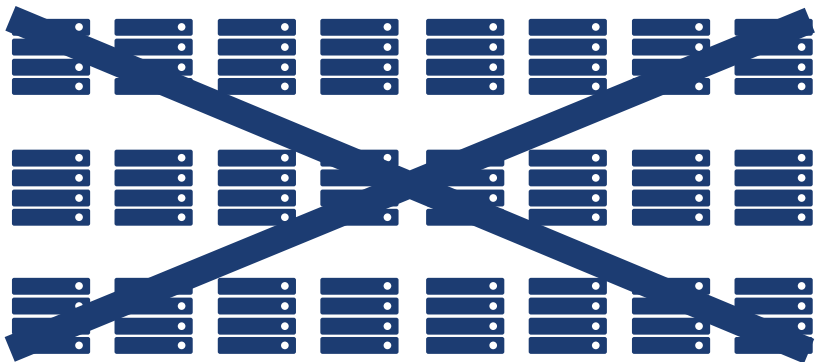
Over 11,000 printers in use by state agencies are routinely managed and serviced by troubleshooting.

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OVER  
**320,000** HELP TICKETS  
COMPLETED

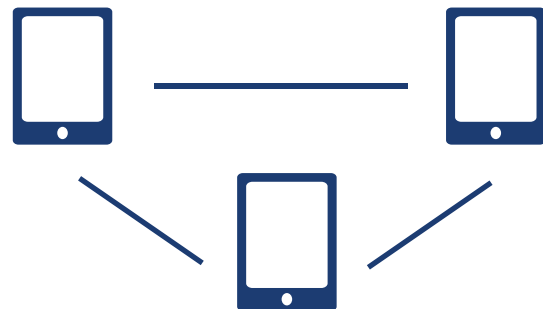
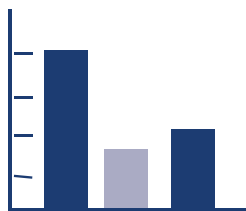
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Core services were upgraded and system redesigned that resulted in a **REDUCTION OF**

 **24**  
**SERVERS**

---

**DEPLOYED ALMOST**  
**5,000** desktop computers  
**352** laptops  
**307** tablets



Developed method for  
managing state-owned  
**iOS devices**

# GIS Geographic Information Services

The Office of Geospatial Information (OGI) is responsible for coordination, guidance, leadership and planning the implementation of Missouri's statewide geospatial information technology. The office identifies, coordinates and guides strategic investments in geospatial information technology, data and service systems to ensure effective implementation and use of geospatial information by state government, local government and the public as an enterprise resource to maximize benefits for Missourians.

## Critical Services



### Enterprise GIS Support

OGI staff administer Enterprise Geographic Information Systems (GIS), maintaining several GIS servers and geospatial databases. Staff coordinate data acquisition with other state, federal and local agencies and geo-enable data through location services. They also perform quality control checks to ensure accuracy.



### Geospatial Technology Program Integration

OGI staff work with program managers to integrate geospatial technology into programs for the State of Missouri and create GIS projects that improve program effectiveness, including grant management, asset tracking and catastrophic disaster planning.

## Mapping Applications

OGI staff are responsible for creating mapping applications like the Missouri Common Operating Picture, or MoCOP, used by emergency managers, Natural Resources Interactive Mapping Service, Women, Infants and Children (WIC) Stores and Clinic Locator, and the Flu Clinic Locator. In addition, staff create products such as the Disaster Support Atlas, which provides emergency support mapbooks for every county in the state of Missouri in a geo-enabled PDF format.

## Software Support

OGI staff provide support to GIS software users.

# Accomplishments

## Emergency Management Geospatial Information Server (EMGIS)

EMGIS is a consolidated enterprise GIS system for the Missouri State Emergency Management Agency (SEMA) and the Department of Health and Senior Services' (DHSS) Center for Emergency Response and Terrorism (CERT). The integration of the two GIS systems at DHSS and SEMA provides a seamless mapping interface for all Emergency Management personnel, regardless of their agency of employment. It also provides increased efficiency for technical staff during times of crisis, allowing crucial information to be available faster.

## GIS Infrastructure Centralization

The OGI initiated and completed a technical infrastructure review of GIS hardware and software installations and determined options for consolidation and improved data sharing. GIS server hardware was consolidated and will be used as a central platform for sharing of GIS services and data.

## LiDAR Data Management

Light Detection and Ranging (LiDAR) is an optical remote sensing technology that measures distance by illuminating a target with light pulses from a laser. This information is useful in many applications including flood and dam breach inundation studies. As Missouri's LiDAR inventory grows, so does our need for data storage. To meet our current and future storage needs, staff from the DNR and ITSD joined forces to create a plan to manage the data more efficiently and allow for greater availability within state government.

# Projects

## Enterprise Geo-coding

Geo-coding is the process of finding associated geographic coordinates (often expressed as latitude and longitude) from other geographic data, such as street address or ZIP codes. With geographic coordinates the features can be mapped and entered into Geographic Information Systems.

A project was started in 2012 and should be completed in 2013 which will provide methods to geo-code data as it is entered (real-time geo-coding) or geo-code data in a batch mode (multiple records at a time). The benefits of address geo-coding are increasing and serve a diverse set of applications such as demographics, emergency response, tax jurisdictions, elections, etc.

## Missouri State Fairgrounds (MSF) Mapping

Work began in 2012 to create more accurate maps of the MSF located in Sedalia. Initial work was completed which provided more accurate maps of the facilities at MSF. Work will continue in 2013 to add MSF infrastructure and provide mobile access to MSF maps.



# Information Security

The Chief Information Security Officer (CISO) leads the Information Security Management Office (ISMO), which works to ensure information and information systems maintained by the state are protected and appropriate safeguards are in place to reduce potential risks. Successful information security management allows networks to operate at maximum capacity while protecting citizens' data.

## Functions



### Forensics

ISMO is one of the few entities in the state (public or private) with a computer forensics lab capable of recovering information from damaged or formatted storage devices and assisting with investigations involving computer hardware.



### Intrusion Prevention

ISMO oversees the management of the state's intrusion prevention system. The intrusion prevention system stops known malicious attacks on the state's network. From November 2011 through October 2012, the state blocked 97.5 million attacks on the state network.

## Vulnerability Assessments

ISMO performs routine and ad-hoc vulnerability assessments against all networked assets, everything from mainframes to printers. ISMO works closely with application developers to test soon to be released applications to ensure that the state's information is protected.

- ♦ Assess over 30,000 networked assets on a routine basis, internal and external.
- ♦ Ultimately leads to the protection of state information as the result of ensuring assets do not have critical vulnerabilities.



### Security Architecture

ISMO provides guidance in developing and maintaining the state's information security architecture and standards.



### Outreach

ISMO communicates with state users and the general public using Twitter, Facebook and through its website, [cybersecurity.mo.gov](http://cybersecurity.mo.gov).

## Internet Filtering

ISMO manages the state's Internet filter. The Internet filter not only protects the state's systems and users from malicious websites, but also assists in reducing bandwidth consumption and increasing productivity.

During an average month:

- ♦ The Internet filtering system monitors over 500 million requests.
- ♦ Close to 10% of all Internet requests are blocked, saving the state gigabytes in bandwidth.
- ♦ About 1,000,000 of the Internet requests blocked are security related.

## Accomplishments

### Apple Computer Management

Because of the increasing popularity and utility of Apple computers, especially with design/print/web/app dev individuals, it has become necessary to manage and secure these devices when circumstances warrant their use. ISMO devised a plan so that Apple computers can be managed and secured in alignment with existing State standards and practices.

### Mobile Device Management - iOS Devices

ISMO oversees the use of MobileIron to ensure that any iOS devices (iPhones, iPads and iPods) used by state employees on the job adhere to State security policies such as encryption, passcode enforcement, frequent connectivity to the policy server, etc.

### Network Access Control (NAC)

Since early 2012, ISMO has been reviewing solutions that protect the State's network from unauthorized devices. First and foremost, network access control (NAC) protects citizen information. Network access control ensures that only trusted devices connect to the network, minimizing the chances for data loss. Additionally, to allow mobile devices to connect to private wifi securely, network access control is required.

### Security Information and Event Management (SIEM)

In the Spring of 2012, ISMO acquired a new SIEM solution to assist with the correlation of logs and alerts. By correlating information gathered from many sources such as the state's firewalls and web servers, ISMO can quickly react in the event of an attack.

---

Assess over

**30,000**  
**NETWORKED ASSETS**  
**ON A ROUTINE BASIS**

**97.5**  
**MILLION**  
**ATTACKS BLOCKED**  
on the state network



**6 BILLION**  
**INTERNET REQUESTS MONITORED**

---

## Projects

### Security Training

ISMO helped produce online training surrounding information security topics like HIPAA, CJIS and general cybersecurity. The online training uses the Moodle open-source platform and features videos produced by ITSD and Division of Personnel. Online training for state employees will begin in early 2013.

### Data Loss Prevention (DLP)

ISMO is currently exploring data loss prevention solutions and also how to better utilize existing technologies to protect state data. Data loss prevention encompasses solutions that use sophisticated heuristic and signature based technologies and low tech options such as educating state employees about malicious email messages.

### Identity Management

ISMO is working with multiple state agencies to architect an identity management solution for the enterprise. Enterprise identity management would allow users of state systems to access multiple systems securely and conveniently.



# MoBroadbandNow

## MoBroadbandNow (MBBN) has Seven Core Objectives Including:

- ♦ Collecting and verifying data and information
- ♦ Preparing comprehensive state and regional broadband maps
- ♦ Establishing technology planning teams
- ♦ Building new and leveraging existing relationships with broadband stakeholders
- ♦ Providing technical assistance
- ♦ Tracking the progress of infrastructure projects and providing transparency
- ♦ Convening public forums and community outreach

Established in 2009 by Governor Jay Nixon as a public-private initiative to expand and enhance broadband accessibility and adoption throughout the state. MoBroadbandNow's first effort was partnering with data providers to identify underserved and unserved communities in the state. Through a competitive award process, funding was secured to design and build 19 new broadband infrastructure projects. Missouri providers were awarded \$261 million under the American Recovery and Reinvestment Act (ARRA) of 2009. The total value of these projects, including additional private cash and in-kind support, is \$320 million. Missourians have already begun reaping the benefits of improved high-speed service and more citizens will see faster, reliable connections in the future.

MBBN is playing a critical role beyond the ARRA-awarded projects. Strategic partnerships have been developed to launch new pilot projects, strengthening Missouri's global competitiveness.

## Progress

### Rural Health Broadband Initiative

The Rural Health Broadband Initiative supports rural hospitals in underserved cities and towns with the last-mile connection, electronic health record storage, disaster recovery data support and "real-time" communication throughout the health system. Healthcare professionals and providers need access to broadband to offer telemedicine services, electronic health record management, patient registration and data collection, digital imaging and transmission, professional development and training along with other applications through online resources.

The Rural Hospital Broadband Connection Grant supports rural hospitals with 50 patient beds or less to establish new or upgrade existing broadband connectivity to the main institutional building and its remote health clinics for improved radiology speed delivery, medical record management, health administration and professional development among others. Award recipients may also use grants for a second (redundant) service to ensure continued network operations.

Total grant award amount: \$362,390.00

Total hospital matching amount and other commitments: \$143,879.00

Total public-private project investment: \$506,269.00

Grant term: December 1, 2012 through July 31, 2014

Advisory team includes the Missouri Department of Health and Senior Services – Rural Health Division; University of Missouri – Missouri Telehealth Network, Missouri Hospital Association, Missouri Foundation for Health – Community Health and Prevention Division, Regional Technology Planning Teams and private broadband providers.

## **AgBroadbandNow**

AgBroadbandNow is a collaborative pilot project with the United States Department of Agriculture (USDA) Missouri State Office, Missouri Department of Agriculture, professional agriculture and agri-business trade associations as well as individual farmers, ranchers, breeders and producers to expand broadband accessibility in one of Missouri's leading economic engines.

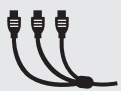
### **In 2012, MBBN:**

- ♦ Published 18 regional technology strategic plans with short and long-term implementation goals on accessibility, adoption and literacy.
- ♦ Completed Round 6 statewide and regional broadband data mapping including accessibility, speed and provider availability.
- ♦ Partnered with 110 out of 113 identified Internet Service Providers (ISPs) in Missouri to identify and resolve broadband inaccessibility.
- ♦ Launched Rural Health Broadband Initiative, a pilot project to expand accessibility to rural hospitals with 50 patient beds or less. Rural Hospital Broadband Connection grants were awarded to 15 hospitals. Total public-private investment is \$506,000.00. The initiative is also focused on improving specialized telemedicine, electronic record management and disaster recovery of medical data.
- ♦ Published 2 broadband "white papers" analyzing quantitative data and qualitative commentary. "Dissecting Missouri's Digital Divide" and "Building Digital Inclusion: Broadband and Missouri's Public Libraries".
- ♦ Profiled in Governing magazine, the leading national publication on state public policy issues, for our collaborative effort on the Ralls County Electric Cooperative project.
- ♦ Co-hosted with the Delta Regional Authority the first multi-state broadband summit, focusing on the specific needs in 225 underserved counties along the Mississippi River. Participating states were Alabama, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee.
- ♦ Published four quarterly broadband infrastructure "progress reports" on the status of construction projects.

# Networks & Telecommunications

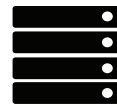
The Networks and Telecommunications team is responsible for the communication infrastructure that provides essential support to state government agencies. Advancements by the team have enhanced business operations, making communications within state government and with Missouri citizens more efficient.

## Critical Services



### Capitol Campus Fiber Optic Network

The Capitol Campus fiber optic network connects major state office buildings in the downtown Jefferson City area, including the State Capitol, the Truman Office Building, the Jefferson Office Building and the Kirkpatrick State Information Center.



### State Data Center (SDC) Network

The blade center network and multi-agency network structure in and around the SDC allows state agencies to access data and services that are critical to them when performing their duties.



### Outstate Network Connectivity

MPLS, Ethernet, and broadband connectivity are provided to end users at nearly 1,100 locations.



### Wireless LAN Services (WiFi)

Wireless LAN (WiFi) connectivity is provided to over a thousand mobile devices on a daily basis.



### Core Network (MPLS)

The core network functions as a central hub so that locations around the State can access information on the State network. In order for state employees to function at maximum productivity, the highest levels of capacity and reliability are required for the core network.



### Internet Services

Internet access is considered an essential service to state agencies. The team provides Internet access to approximately 50,000 users across all state agencies, as well as secured access to hundreds of state government web sites via the public Internet.



### **Disaster Recovery Site Connectivity**

Connectivity with the State's disaster recovery site (or secondary site), in Springfield, MO, must be reliable and of sufficient capacity to allow for the replication and synchronization of data located at that site and in the SDC.



### **Jefferson City Metro Area Ethernet Network**

The Jefferson City Metro Area Ethernet Network connects buildings throughout the Jefferson City area to the Capitol Campus fiber optic network and the State Data Center Network.

## **Videoconferencing Services**

The voice and video services team supports over 10,000 cellular connections for all state agencies, as well as support for hundreds of video conferencing endpoints. In addition to these services, the team also provides desktop telephony support for thousands of analog service users across all agencies, as well as integrated voice response (IVR), toll-free, and long-distance service support.

## **Accomplishments**

### **Internet Protocol Version 6 (IPv6)– Phase I**

IPv6 is a world-wide initiative that will eliminate the shortage of unused IP addresses under IPv4 by establishing more IP addresses than will ever be necessary. Phase I of the State's project established IPv6 addressing on the core network structure, defined preliminary address allocation for all large state agencies, and established translation services between IPv4 and IPv6.

### **Network Consolidation**

Network consolidation that reduces costs and provides standardization and interoperability continued. Shared-service networks at approximately 80 locations to enable unified communications and shared server resources were implemented, resulting in significant one-time and ongoing equipment savings and more effective cost-per-unit metrics on data-circuit procurement.

### **Network Modernization and Upgrades**

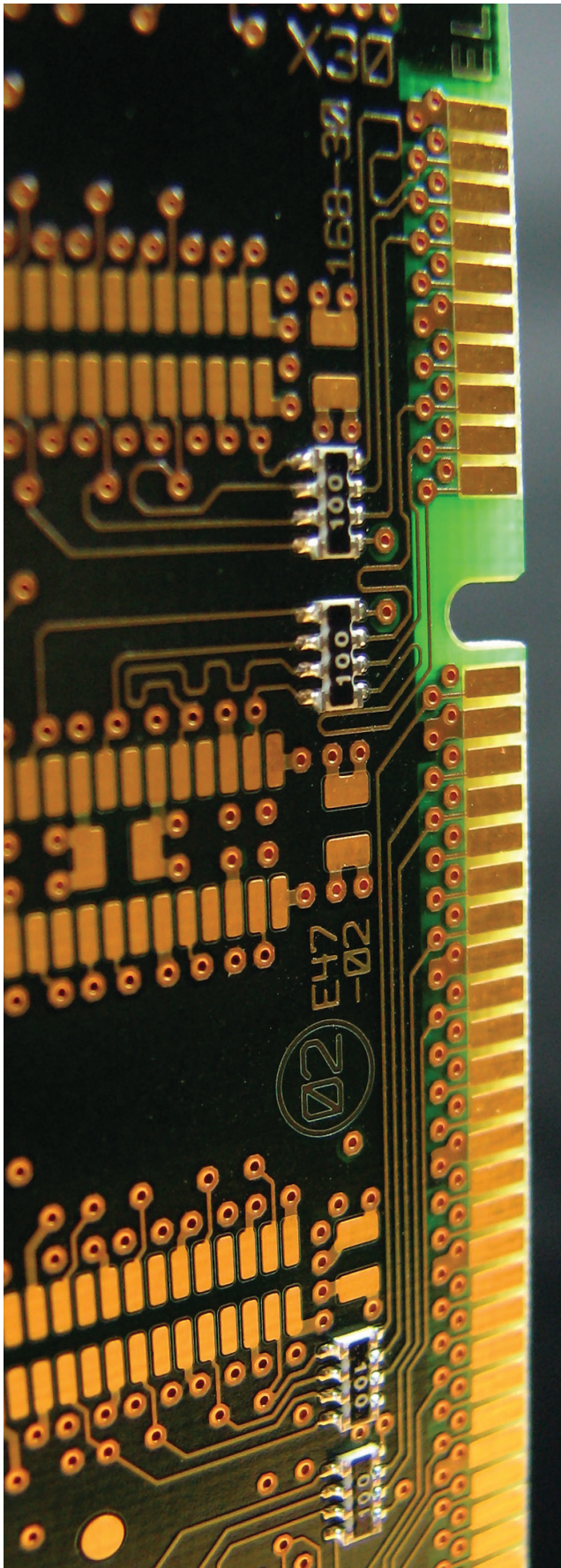
Network redesign and restructure to support the demand for modern technologies and tools that make government more effective (e.g.

E-Government, Electronic Content Management (ECM), Online Services, Unified Communications (UC), Virtual Desktop (VDI), etc.) continued with a special focus on increased capacity and reliability. In addition, Department of Elementary and Secondary Education large state school networks (MSD, MSB) were completely rebuilt and modernized and Department of Corrections institutions received significant network bandwidth upgrades and some equipment upgrades.

### **WiFi**

The Wireless LAN (WiFi) service structure was upgraded significantly this year, greatly increasing the capacity and potential coverage of the system. WiFi was implemented at eight Department of Mental Health hospital/campus locations and 15 state parks.





## Projects

### Internet Protocol Version 6 – Phase II

Compatibility testing of the State's implementation of IPv6 will occur in 2013.

### Network Consolidation

Consolidation of the DESE, DHSS and DIFP computer room networks into the State Data Center will be completed in 2013. Common configuration parameters for all network devices will be put in place, a consolidated wide-area network (WAN) acceleration structure will be developed and shared-services network structures throughout the state will continue to rollout.

### Network Modernization and Upgrades

A core network modernization and refresh must occur in 2013. The State Data Center network structure will be upgraded to support next generation virtual server/storage environments. High-speed connectivity to locations in metro areas and areas served by long-haul ethernet services will be implemented. Also, MoBroadbandNow middle-mile providers will implement high-speed connectivity to approximately 20 locations.

Network bandwidth is a key enabler of customer business strategies. Increased investments in network bandwidth and strategies for network capacity planning during 2013 will be required to overcome existing bandwidth constraints.



# Project Management Oversight

The Project Management Oversight Office (PMO Office) provides guidance on development and maintenance of IT contracts and assists IT project managers on the performance of their duties when necessary.

## Critical Services



### PAQ Oversight

The primary responsibility of the PMO Office is oversight of all Project Assessment Quotes (PAQ) that allow the state to procure services from vendors on existing state contracts. This is intended to ensure that the state receives value from the work performed and that vendors are treated fairly.



### ProjectManager.com

The PMO Office compiles project status reports into a web-based ITSD Projects Dashboard through a system called ProjectManager.com. This allows ITSD management to view ITSD Projects and their current status.

## PMO Tools & Templates Repository

The PMO Tools and Templates Repository is a collection of standardized documents and procedures used for project management. These processes and templates support ways to improve business operations (i.e., reduce delivery costs and time):

- ◆ Early identification of project issues, budget, scope and risks
- ◆ Apply knowledge that is working for one agency and may help another
- ◆ Eliminate duplication of data and processes among project managers

This site also is the source of “best practices” that, together with PMO staff, serves as a knowledge-based center, providing expertise, support and training.

## Portfolio & Project Repository

The consolidated ITSD Portfolio and Project Repository is a central location housing information regarding systems, applications and projects currently supported by ITSD.

2012 Portfolio and Project Repository statistics:

- ◆ Collected vital information on 1,100 software applications
- ◆ Collected information on 295 application development projects

# Accomplishments

## Health IT Consulting Contract

In August of 2012, a contract was awarded to establish a Qualified Provider List (QPL) for seven providers of Health IT consulting services. Services obtained through this contract will be done using the Project Assessment Quotation (PAQ) process.

## PMO Sharepoint Site

The PMO SharePoint Site provides a platform to share templates, share best practices and facilitate the submission, approval and oversight of ITSD projects. The site contains many standardized form templates that are used by ITSD Project Managers to support all 14 consolidated agencies. One of those forms is a Project Assessment Quotation (PAQ) Form. The PMO Office developed a consistent process to develop, bid, approve and manage change of the PAQ Forms done for each of the consolidated agencies.

## Statewide IT Consulting Contract

During 2012, the PMO Office helped oversee the initial year of a new Statewide IT Consulting Contract. The new contract, awarded December 2011, increased the number of vendors on the Qualified Provider List (QPL) from three to ten. Services obtained through this contract will be done using the Project Assessment Quotation (PAQ) process.

# Projects

## Application Portfolio Management & Project Portfolio Management

ITSD's "Application Portfolio Coordinator" and the PMO Office are leading an effort to better capture, store and share information about the State's application and project portfolios with the goal of optimizing the allocation of the state IT resources.

# State Data Center

The Missouri State Data Center (SDC) provides a cost effective, uninterruptable hosting environment to support state IT needs. The IT services provided by the SDC support, either directly or indirectly, every service provided by the State of Missouri. The SDC provides IaaS and private cloud services to over 16 state agencies and/or government entities.

## Critical Services



### Websphere, Middleware and Application Server Support (WMASS)

The WMASS team was formed in 2011 to manage and support the consolidation of the state's web hosting, active directory, web portal, SharePoint, Enterprise Content Management (imaging), Exchange, account management and other middleware application components. Consolidation of licensing, maintenance, hardware and software is resulting in cost savings across these technologies.

Efficiencies are realized from standardization of processes and procedures within these technologies.

- ◆ Support 1,000+ applications for 14 consolidated agencies.
- ◆ Support enterprise SQL Server Reporting Services for eight consolidated agencies.
- ◆ Support the enterprise e-mail archiving system for 14 consolidated agencies.
- ◆ Support the enterprise SharePoint environment for the State of Missouri.
- ◆ Support enterprise directory services and e-mail communication systems which consist of approximately 42,000 accounts.



### Operations and Monitoring (Systems, Power, Cooling, Security)

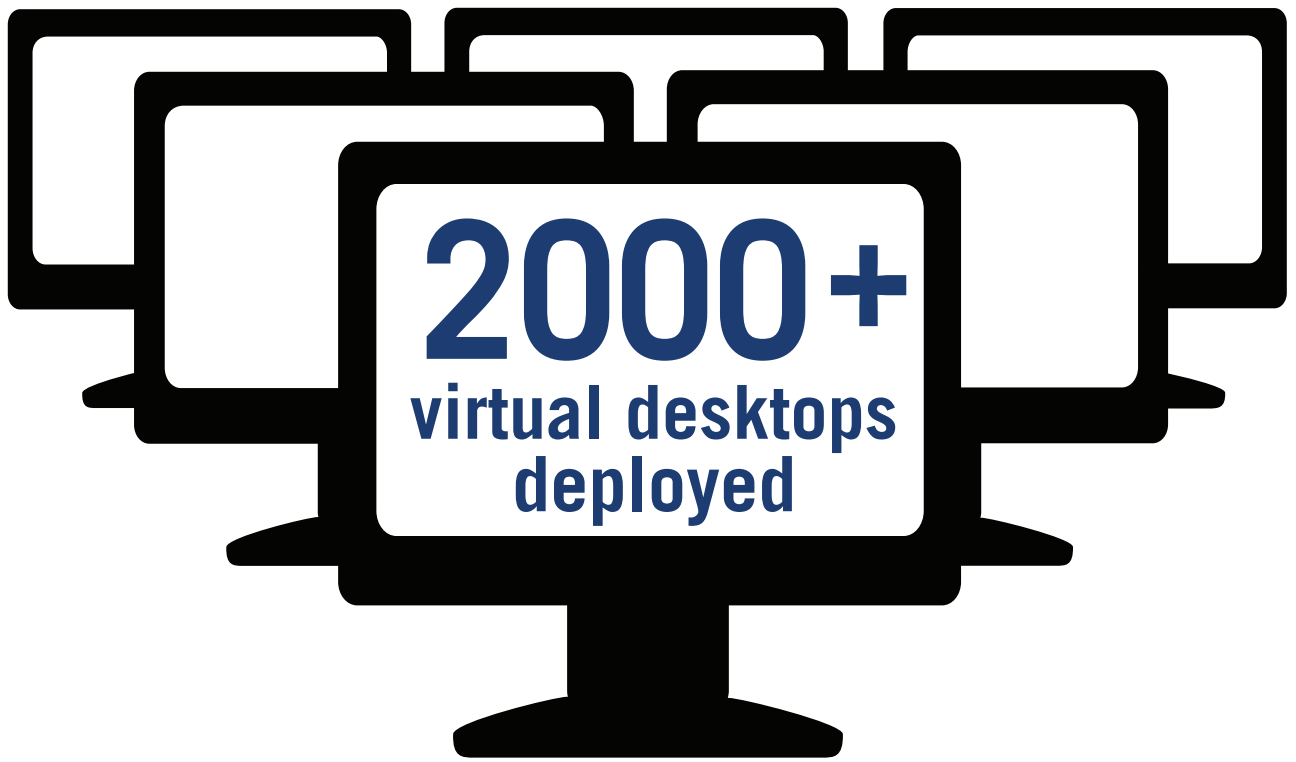
SDC operations staff maintains batch processing, critical system monitoring and alerting of all state IT systems, to include cooling and physical access of SDC, as well as provides after-hour phone support to state agencies. SDC operations staff opens an average of 1,100 monthly after-hours support calls, assisting agency users with IT issues.



### Systems

The SDC systems group is responsible for installing, configuring and maintaining all distributed, midrange, mainframe and storage systems in the SDC. This group maintains all data backup and replication of data and recovery of systems to disaster recovery site.

*[Statistics on next page]*



---

**18000**

The number '18000' is rendered in a large, white, sans-serif font. The background of the numbers is a blue field with a pattern of horizontal white lines and small white dots, resembling a server rack or data center environment.

**VIRTUAL SERVERS**



**938,225**  
GB of data backed up **DAILY**

This section includes a blue icon of a clock face with a circular arrow around it, signifying a daily cycle. To the right of the icon is the number '938,225' in a large, bold, black font. Below this number is the text 'GB of data backed up DAILY' in a smaller, black font, with 'DAILY' in a bold, sans-serif font.

## Print Shop

The SDC print room operates 24-hours/day, 365 days/year and provides a critical service to the state through the production of printable checks, titles and more.

- ♦ Approximately 1.8 million vehicle titles printed in 2012
- ♦ Approximately 1.8 million checks printed in 2012
- ♦ Approximately 54 million feet of print in 2012

## Accomplishments

### Consolidation of DHSS & DESE Computer Rooms

The DHSS computer room migration from Wildwood to the SDC is complete. This consisted of over 85 DHSS applications running on 165 virtual and physical servers to 95 servers in the SDC. Over 20T cooling and equipment was eliminated, saving over \$240k annually.

Consolidating the DESE computer room from the Jefferson Building to the SDC avoided hardware upgrade costs of more than \$250k and has improved system performance.

### Database Consolidation

32 database administrators (managing over 6000 databases) and 7 database management subsystems have been consolidated in order to standardize practice. This is saving over \$100k annually.

### Disk-based Replicated Backups

The SDC implemented a disk-based electronically replicated system to replace traditional tape based system. Over 400TB of distributed system-based backups were migrated. This allows for a more

secure, agile backup and recovery system, while mitigating the risk associated with transporting tape around the State.

### Mainframe Disaster Recovery

The plan for mainframe disaster recovery has been redesigned to reduce recovery time from multiple weeks to hours/days, saving over \$150k annually.

### Server and Storage Provisioning

The SDC, leveraging a private cloud environment, provisioned over 325 new virtual servers and 120TB of storage in 2012.

### Virtual Desktop

Virtual Desktop services have now been extended to nearly 2,000 state agency users.

## Projects

### Core SDC Network and Storage Fabric Upgrades

The SDC has been managing IT services on a 1G/Eth and 4 Gb Storage fabric for over a decade. In order to meet the demands of our increased workloads, the SDC will upgrade the core network and storage fabric to support 10G/Eth and 8 Gb.

### Mainframe Upgrade

Enterprise services are running at or near capacity. The SDC will upgrade the current Z/OS environment to a faster cpu. This will add needed capacity while reducing cpu workload with faster processors.

# Unified Communications

The Unified Communications (UC) team provides an efficient telecommunications system allowing state agencies to integrate existing, multiple communications services across the entire state enabling agencies to reduce travel, increase efficiency, improve customer experience and save costs. The UC team is responsible for providing Voice over IP (VoIP) for roughly 14,000 customers throughout the state. In addition to VoIP, the team provides functionality such as voicemail, 911 services, call center, chat, desktop collaboration and video.

## Critical Systems



### Call Centers

Cisco Unified Contact Center Express (UCCX) runs 113 call centers. The UCCX reporting allows supervisors to track incoming calls including the number answered, deflected and wait times of the callers, as well as agent performance statistics.

Cisco Unified Contact Center Enterprise (UCCE) is used exclusively at the Department of Labor and Industrial Relations (DOLIR). The system supports DOLIR's four call centers located in Jefferson City, St. Louis, Springfield and Kansas City. The UCCE system works in conjunction with their Interactive Voice Response (IVR) system to process inquiries and claims around the state. The system supports over 200 agents and over 600 concurrent calls. On an average day the DOLIR call centers can field upwards of 4,000 calls.



### Call Manager

The Cisco Unified Communications Manager (CUCM) allows state staff to add phones to the state network, assign numbers, configure features and add/remove calling groups. The Call Manager allows staff to manage phones throughout the state with more than 14,000 devices registered.



### Client Communicator (CUPC & Jabber)

Cisco Unified Personal Communicator (CUPC) or Jabber is deployed to an employee's computing device to enhance employee productivity. Features of a client communicator include presence, instant messaging, visual voicemail, contacts, call history and click-to-call.



### Emergency Responder

When a person dials 911 from a state-owned UC phone, Cisco Emergency Responder (CER) enables local 911 operators to identify the location of that person within the office building.



### Voicemail

Cisco Unity Connection was deployed to provide enhanced voicemail services supplying centralized messaging with clustering over the WAN.



### Telepresence & Video Conferencing

Telepresence gives staff the ability to work with constituents and other state employees virtually in four major cities: Jefferson City, Kansas City, St. Louis and Springfield. By reducing the amount of travel by state employees, telepresence reduces the cost of collaboration.

## Web & Audio Conferencing

MeetingPlace /WebEx environments give users the ability to schedule conference calls directly from Outlook and virtually share desktops or applications for a meeting. MeetingPlace allows for collaboration either on the network or outside of the network and gives the organizer the ability to hand the meeting over to another attendee in the meeting who can share their desktop. Over 130,000 audio- only minutes, 330,000 audio/web minutes, and 13,000 video minutes were used during the past year.

## Accomplishments

### Phase II Completion

Phase II phone deployments were completed in 2012. Through phase II a total of 5,657 phones were converted from PLEXAR to UC. In addition, a total of 518 PLEXAR lines were disconnected. Disconnecting the PLEXAR lines saves an estimated \$7,081 per month.

### System Redesign and Support

Efficiencies in system redesign and support eliminated an estimated \$5,100 per month in third-party infrastructure. In addition, system support costs have been reduced by \$7,358 per month.

## Projects

### Phase III

There are an estimated 3,000 phones located across the state in various cities that will be converted to UC. Phase III will include state facilities in St. Joseph, Kansas City, Columbia, Cape Girardeau and more.

# Web Presence

The Web team provides technical support and expertise to all agencies and maintains web portals that support the state as a whole. Web team members have skills in web design, user experience, CSS, Javascript, PHP and the open-source content management systems: Wordpress and Drupal.

## Critical Services



### Consulting and Web Development

The Web team supports statewide web development by maintaining a centralized team of web professionals to consult on web design, development and mobility. This team provides templates and consults with other teams and government agencies on design, HTML5, CSS, jQuery, user experience, mobility, PHP, Codeigniter, Wordpress and Drupal. The team is available to consult all state agencies and performs educational outreach via the Digital Media Developers (DMD) group.



### Web Portals

State web portals include:

- ♦ MO.gov: the state's citizen portal, provides a single citizen-centric view of the state's web presences. In the past year, MO.gov received over 3 million visits and totaled over 9 million page views.
- ♦ The Missouri Business Portal, [business.mo.gov](http://business.mo.gov), provides resources and information for starting and operating a business in Missouri.
- ♦ The Missouri Data Portal, [data.mo.gov](http://data.mo.gov), catalogues public data sets maintained by state agencies.

These enterprise portals make information and data from all state agencies more accessible.



### Video Production

The web team produces professional quality videos, including the "MoGov Minute" for MO.gov, in addition to providing video services.



# Accomplishments

## Missouri Data Portal

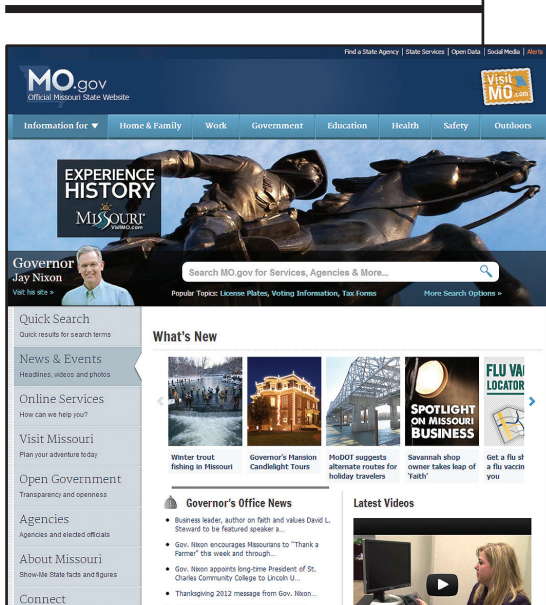
The Missouri Data Portal moved to the Socrata social data platform that makes it easy for citizens, researchers and developers to use State public data. Data can be shared, filtered, downloaded and exported in a variety of ways. The portal is available for use by all state agencies.



### MO.gov Website

Enhancements to MO.gov included:

- ◆ Improved online services directory making it easy to locate over 700 online services.
- ◆ Additional value-added content informing citizens of available services in simple terms.
- ◆ Unified search allowing users to search mo.gov's content, online services, state agencies, social media and state employees in one location.
- ◆ Mobile styles for a user-friendly mobile device experience.
- ◆ Social media directory making it easy to connect with a state agency or program of interest.



# Projects

## Missouri Business Portal

Re-development of the Missouri Business Portal continues with a goal to improve content, increase usability and unify with agency websites. The website is being developed in the Drupal open-source content management system.

## OA Website

Re-development of the OA website continues. The website is being developed in the Drupal open-source content management system.

# Administration

The Office of Administration (OA) provides guidance and assistance to state government entities through the implementation of Executive Office initiatives, the establishment of uniform procedures and rules, as well as providing services in a cost-effective manner.

## ITSD-OA

ITSD-OA programmers use the COBOL/Mainframe and Microsoft .NET platforms to maintain and develop the systems that allow OA to perform its core functions.

## Critical Systems

### Accounting (SAM II & MAP)

Statewide Advantage for Missouri (SAM II) is an accounting system that processes state transactions for purchases, payments and fixed assets reporting. It is also used to project federal grant reporting and draw-downs. SAM II is also used to process state payroll and perform other HR tasks.

SAM II is now approaching its 15th year in production. It is a COBOL/Mainframe commercial-off-the-shelf (COTS) system that has been customized for the State of Missouri and requires full-time ITSD staffing to ensure that the system is updated to comply with state and federal accounting rules and is functioning as intended.

SAM II data warehouses exist and are updated so that other systems are able to query the

large amounts of data in SAM II. The Missouri Accountability Portal (MAP) uses the data warehouse to present financial information to the public, allowing citizens to track how the state is spending taxpayers' money.

In the past year, SAM II processed more than 107,950 purchase orders, processed more than 1,194,000 payment vouchers, printed over 521,000 payments to vendors by check, created over 601,600 direct deposit payments to vendors, processed more than 1.3 million payroll checks, and processed over 55,000 paychecks per pay period. Advices are now printed for 5.5 percent of direct deposits, down from 23 percent a year ago, reducing printing costs.



### Budgeting System (BRASS)

BRASS is the system used to develop state agency budgets during the State's budgeting process every fiscal year.



### State Vehicles (FLEET & CARS)

FLEET tracks state vehicle fleet information and CARS allows state employees to reserve a car for state use.



## **Personnel and Employment (EASe, MAIRS & JOA)**

The Electronic Application System (EASe), Management and Applicant Information Resource System (MAIRS) and Job Opportunity Announcement (JOA) software combine to support the Missouri Merit system.

The JOA system displays a listing of open merit registers. Merit System job applicants use EASe when applying to be added to a Merit register. EASe collects pertinent employment information about an applicant and depending on the job class applied for, determines the applicant's rating of their education and experience based on their responses to a series of questions. MAIRS, together with EASe, is used to process Merit System applications, schedule and score tests, fill registers, create certificates and track dismissals.

EASe and MAIRS are based on the legacy CA Gen technology. They are candidates for replacement by a modern system when resources become available.



## **Performance Appraisals System (PERforM)**

PERforM is a .NET system used by 6,700 state employees to create performance objectives, create annual performance appraisals and create special appraisals. In the past year 33,780 annual appraisals were created.



## **Workers' Compensation (RISK)**

RISK is the system used to track workers' compensation claims by state employees. RISK is a CA GEN system that is being replaced by RESTORE and will be retired in 2013.

## **Procurement and Bidding**

The Online Bid (OLB) system is a web-based statewide bid system used by agencies to solicit and receive bids and make awards. Vendors are also able to register as a state vendor and identify the commodities they provide.

Almost 35,000 vendors are registered to use the site; close to 3,000 new or updated registrations were received over the past year; 500 bids were posted and close to 270 bid responses were received.

The system, along with other small systems and paper-based processes, is a candidate for replacement with a modern eProcurement system when funding becomes available.

## **STC Assessments System**

The STC Assessments system is used by the State Tax Commission to assess and report on the value of property held by utilities and railways.

## Accomplishments

### Boards and Commissions System

The Boards and Commissions System automated much of the process for managing the applications of citizens who wish to serve on one of Missouri's many boards and commissions. This Microsoft .Net system allows applicants to create and manage their application(s) to serve. The system also allows State staff to manage those applications centrally and electronically, eliminating paper and reducing the time necessary to process applications.

### Charitable Campaign System

The state employee's charitable campaign system is a .Net application used by State staff to manage charity and donation data for the annual campaign. The system replaced a variety of manual processes, a Microsoft Access database and several Microsoft Excel spreadsheets.

### Enterprise Timekeeping Application (ETA) Phase I

ETA consolidated three separate timekeeping applications used by ITSD into one Microsoft .NET system that allows ITSD to track staff time at the project level. Several other OA divisions and state agencies have converted to the system as well. This improved timekeeping system has allowed the State to retire redundant electronic systems and eliminate some paper-based systems.



#### Asset Tracking System (iTrack)

iTrack is an asset tracking system that allows end-users of IT equipment to self-report the IT assets they are using. The system will replace a labor-intensive inventory process.

## Projects

### Capital Improvement Budget Requests (CIBR)

The existing Access based CIBR system is being rewritten as a web-based system that will be accessible throughout the state via the Internet. The new system will eliminate many manual processes for each state agency and for the OA Division of Facilities Management. This system will be implemented in time to process the 2014 capital improvement budget requests.

### EASe Rewrite: Phase I

Phase I of the EASe rewrite will make it accessible on all devices and in all browsers by converting it from the CA GEN technology to Microsoft .NET. This will also lay the foundation for future enhancements to the value and effectiveness of the system.

### Jobs

An enterprise job posting and application system will be developed as a shared service for agencies wishing to participate. Applicants will be able to manage and submit their applications for positions. Agencies will be able to post job opportunities and manage the applications during the interview and hiring process.



#### Enterprise Timekeeping Application (ETA) Phase II

Additional state agencies will be migrated to the ETA system so that less desirable systems can be retired and paper-based systems eliminated.



## OA Website

Re-development of the OA website continues. The website is being developed in the Drupal open-source content management system.

### Workers' Compensation (RESTORE)

The Risk Enterprise System to RESTORE Employees (RESTORE), which manages workers compensation claims for employees of several state agencies and universities, will be implemented in 2013.

Created using the .Net platform, RESTORE will replace the Risk Management System that has been in use since 1993 and is based on block mode, green-screen technology that is now outdated.

RESTORE will provide new and improved functionality in the areas of payments, claim subrogation and claim event documentation, streamline federally required Medicare reporting, eliminate paper-based processing for claim forms and settlement negotiations, and enhance the ability to track trends and manage costs efficiently and effectively.

# Agriculture

The Missouri Department of Agriculture's (MDA) mission is to serve, promote and protect the agricultural producers, processors and consumers of Missouri's food, fuel and fiber products.

## ITSD-MDA

ITSD-MDA develops new internal applications for MDA in the Microsoft .NET environment using Microsoft SQL databases. There is also some development on the Microsoft Sharepoint and Microsoft Access platforms. A number of AS400 legacy systems are being converted to Microsoft .NET. Web development for MDA occurs in the open source environment using PHP, MySQL and the Wordpress content management system.

## Critical Systems



### AgriMissouri System

The AgriMissouri system is used by Ag Business Development (ABD) to manage AgriMissouri memberships and business profiles of local food producers. The system exports business profiles to the AgriMissouri website where consumers can search for local foods and agritourism facilities. There were more than 1,700 members and 218 farmers' markets registered. The system uses PHP and MS Access technologies.



### USA Herds

USA Herds is Commercial-Off-The-Shelf (COTS) software that allows the Animal Health Division to track livestock and poultry in Missouri to help ensure that our food supply is safe. Components include veterinarians, premises reports, animal brands and livestock import/export. There are more than 20,769 premise reports and 4,600 animal brands in the system. USA Herds employs .NET technology.



### Pesticides System

The Pesticide Program aids in the prevention of adverse effects of pesticides on human health and the environment. The program also aids in assuring the availability of necessary pesticides by licensing pesticide applicators and dealers, registering pesticides and performing inspections and investigations in the enforcement of the Missouri Pesticide Use Act and the Missouri Pesticide Registration Act. The Pesticides system is a Microsoft .NET and an AS/400 system that aids in managing these duties.



## **Animal Care System**

The Animal Care System is used to ensure that dogs and cats, specifically those under the care of breeders, pet sitters, intermediate handlers, dealers, exhibitors, hobbyists, boarders, retail pet stores, animal shelters, rescue operations and municipal pounds, receive adequate care, shelter, health care and proper socialization. The Animal Care System is used on laptops by Animal Health Division to capture information on routine inspections, complaints and inquiries while in the field. The system is used in the office for data processing to issue licenses and maintain data and enforce mandated regulations. More than 2,300 facilities are licensed and or registered by the department annually. The system uses .NET and Microsoft Access technologies.

## **Feed and Seed System**

The Feed and Seed system uses a combination of Microsoft .NET, Microsoft Access and AS/400 technologies to help the Plant Industries Division ensure correct labeling on packages of feed and seed. More than 61,000 test results are managed via the system annually.

## **FQLIMS (Fuel Quality – LIMS)**

The Fuel Quality Program, part of the Weights and Measures Division, administers the fuel quality law through inspection, analysis and enforcement to help ensure consumers are purchasing quality motor fuels. Fuel samples are collected by field personnel and submitted for testing. The petroleum laboratory analyzes gasoline, kerosene, heating fuels, diesel fuels and alternative fuels including biodiesel and E85 fuel ethanol to make certain they meet state quality and safety standards. There are more than 9,200 samples obtained and tested through fuel quality inspections annually. FQLIMS is a Dbase system, with .NET and Microsoft Access components, that manages sample results.

## **Petroleum Station Inspection System**

This system maintains data on safety and device inspections of above ground storage tanks, service stations, refined fuels bulk storage facilities, marinas, airports, barge and pipeline terminals, bulk delivery trucks and other retail/wholesale locations. Currently, the Weights and Measures Division regulates nearly 2,825 facilities of various types. This system uses Microsoft .NET technologies.

## **WinWam**

WinWam allows Device and Commodity inspectors to capture field inspections electronically. Data from more than 8,500 inspections is entered into this system annually. This system uses Microsoft Access technology.

# **Accomplishments**

## **Brands Book**

Branding is one of the oldest and best ways to permanently identify livestock. It serves as an excellent safeguard against livestock theft, loss or dispute. Livestock brands used in Missouri are now accessible and searchable online at [mda.mo.gov](http://mda.mo.gov). MDA no longer prints and mails copies of the Brand Book to livestock owners each year, saving over \$11,000 annually.

## **State Fair Concessionaire Contract System**

The State Fair Concessionaire Contract system is used to manage and maintain contracts for concessionaires during the annual Missouri State Fair event. This project converts the application from AS/400 to Microsoft .NET technology. Modernizing the system minimizes the time to deliver system changes to MSF and lowers system maintenance costs.

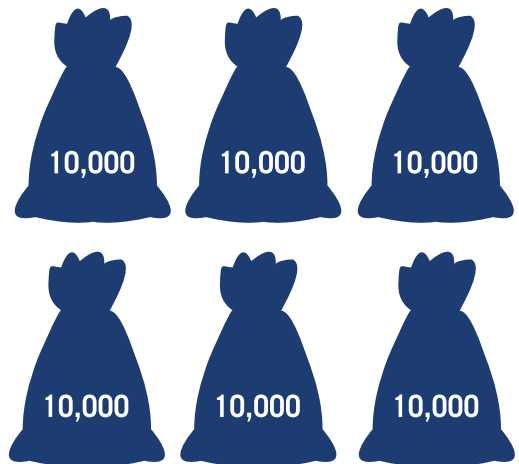
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**1700** & **218**   
**MEMBERS** **FARMERS' MARKETS**  
registered with AgriMissouri

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**MORE THAN  
60,000**

**TEST RESULTS MANAGED  
via the Feed & Seed system**



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**2,349**   
facilities licensed or registered in the  
**ANIMAL CARE SYSTEM**



**SAVES OVER  
\$11,000**  
annually in print and   
**POSTAGE**



WinWam allows  
inspectors to enter  
**MORE THAN  
INSPECTIONS ANNUALLY**

**8,500**



# Projects

## Feed and Seed Samples Publishing

This project will create an automated process for feed and seed sample results to be published and searchable on the web. This eliminates mailing the results to the customers and fulfills state regulations regarding publishing.

## Grain Business Licensing (ExamHand)

ExamHand is a Microsoft Visual Foxpro system which will replace 2 AS/400 systems and a paper process allowing MDA to efficiently and accurately license and audit grain businesses which operate in the state. ExamHand is used by 12 other states which is helpful as MDA often regulates companies that work across state lines.

## USALims

USALims is a laboratory information management system to replace a legacy AS/400 system. The system will manage data related to specimens, accessions, test results, etc. It provides automated report generation, distribution and auditing.



### Motor Oil Sampling System

This new Microsoft .NET system will capture sample information, capture lab test results and report and manage regulatory requirements. This will replace a labor-intensive method, reducing processing times.



### USAPlants

USAPlants will replace 7 AS/400 applications and help automate seed and fertilizer registration and oversight.

# Corrections

The Missouri Department of Corrections (DOC) supervises and provides rehabilitative services to adult offenders in correctional institutions and Missouri communities to enhance public safety.

## ITSD-DOC

ITSD-DOC performs application development on behalf of the DOC using Java technology. There are also RPG/AS400 systems in place that will one day be converted to web-based Java applications.

## Critical Systems



### Law Enforcement Notification System (LENS)

LENS is a JAVA system for law enforcement agencies that allows authorized users to run an inquiry on any offender under the supervision of DOC through a secure internet connection at no cost. Basic identifying information (including photos), current offense, current location (or last known address) and supervision contact information are a few examples of the information available. In addition, agencies may subscribe to receive electronic notification when selected events of interest occur during a specific offender's incarceration, such as upcoming parole hearings, escapes and releases. LENS has 289 agencies enrolled, 4,431 agency users enrolled and 6,229 subscriptions to events.



### Missouri Corrections Integrated System (MOCIS)

MOCIS is a JAVA system that will ultimately replace the majority of the offender management systems for DOC. The first modules in MOCIS were implemented in March 2010. Additional modules are scheduled for implementation over the next several years. MOCIS currently has over 11,190 active users.



### Offender Web Search

The Offender Web Search (OWS) application written in JAVA is a public website that allows the public to search for information about offenders under active supervision of DOC. This information includes identifying information, offense information and contact information for the supervising DOC location.

### Offender Management Systems (OPII)

DOC utilizes offender management systems including OP11, MOCIS and ARB to manage offenders both in Missouri institutions and in the community. OP11 has been in production since 1998 and is a RPG/AS400 based system that is customized to the DOC business processes. OP11 contains 562,739 total offender records and 125,953 active offender records. MOCIS will eventually replace OP11.

## Automated Road Book (ARB)

ARB is a 2005 Java system that allows Probation and Parole staff to log case notes for offenders under their supervision. Through ARB, over 2 million user-entered case notes are recorded annually.



### Puppies for Parole System

The Puppies for Parole program is a partnership between DOC and animal shelters in which offenders train dogs to increase the likelihood that the dogs can be adopted. The Puppies for Parole system tracks animal shelters and dogs participating in the program. It also includes a public-facing application to promote the dogs that are actively being trained so the general public can view the dogs available for adoption.



## Accomplishments

### Missouri Vocational Enterprises MVE Punchout

MVE released a new online ordering system (Punchout) specifically for the University of Missouri and its networks. This online system opens the door for MVE to sell their products within the University of Missouri procurement system, called "Show Me Shops."

### OMS (Office Management System) Conversion

The project will convert documents from the legacy word processing system, OMS, on the AS400 to RTF format and retire the legacy system. This standardizes on a modern platform and reduces costs. Over 6,200 documents have been converted thus far.

### OPII FFVP Document Conversion

This project automated the conversion of OPII Final Form (FFVP) Documents into a Document Management system to support a paperless office. This automated process has converted over 892,000 documents that can contain 1 to 50 pages, saving staff time.

## Projects

### MOCIS Module for Healthcare

DOC is statutorily obligated to provide basic health care at the same level as the non-incarcerated community. The MOCIS Healthcare module will be implemented in 2013 and is comprised of four areas of care: medical, mental health, substance abuse treatment and sex offender treatment.

### Visitations

DOC encourages visitation of incarcerated offenders by family and friends as it promotes rehabilitative efforts. Two JAVA systems will help DOC in this effort. One captures pertinent information from persons requesting to visit an offender. This will reduce request processing time for citizens and DOC staff.

A second system is designed to enhance safety in facilities - helping ensure that visitation privileges are granted appropriately. One global visitor record will capture and track all visitation privileges of any person, improving staff productivity and effectiveness.

# Economic Development

The Department of Economic Development (DED) leverages our competitive advantages and delivers strong economic growth for Missouri.

## ITSD-DED

Web and Application development by ITSD-DED occurs in the Microsoft.NET environment in conjunction with a variety of third party software applications for web content management.

The Public Service Commission (PSC) regulates investor-owned electric, natural gas, steam, water and sewer and telephone companies. The PSC remains unconsolidated and houses an IT unit within its organizational structure.

## Critical Systems



### Electronic Job Board

Jobs.mo.gov is DED's Division of Workforce Development (DWD) labor exchange system and public website. It is an electronic job board (much like Monster or Career Builder) allowing employers to post jobs and search for suitable candidates and job seekers to post their resumes and find employment. The system is also used by unemployment benefit recipients to complete their mandated four week reporting.



### Workforce Programs (Toolbox2 - TB2)

TB2 is the case management system used by DED staff and its Workforce Investment Board (WIB) partners. It allows them to manage the enrollment of job seekers in state and federal workforce programs (for example, WIA, Wagner Peyser, TRA and METP) and track the use of services provided under these programs. This third party Oracle-based software has been heavily customized for use in Missouri. Monthly, quarterly and yearly reports are generated from the data in the system to meet federal reporting requirements.



### Tourism Website

VisitMO.com is a critical component in Missouri Division of Tourism's (MDT) effort to bring tourists and tourism dollars into Missouri. The website allows users to find desirable attractions and events through an appealing and accessible design. The website, based on the DotNetNuke platform, is operated by MDT with support from a contracted partner. There are also a number of ways that tourists can interact with MDT through social media. Tourism-related businesses are able to upload profiles and events and market their businesses.



### **Tax Credits (Customer Management System - CMS)**

CMS is used internally to track awarded and redeemed tax credits. Currently all of the state's tax credits are tracked via CMS, with the exception of those belonging to the DIFP and DOR. There are 75 tax credit programs from six departments in the system.



### **Workforce Information Database**

The Missouri Economic Research and Information Center (MERIC) uses the Workforce Information Database to maintain and update employment statistics, labor market information, business listings and related economic and demographic data.

## **Utility Rates and Hearings (Electronic Filing and Information System - EFIS)**

EFIS is a public, web-based document management system that integrates automated process management, imaging and content management into a central electronic repository for commission cases, complaints, inquiries, tariff/rate case filings, staff reports, commission agendas and orders. The EFIS application accommodates approximately 7,000 internal and external users.

## **Accomplishments**

### **Jobs.Mo.Gov**

Jobs.mo.gov, Missouri's jobs board, is a re-development of MissouriCareerSource.com. The website is much more user-friendly and includes new, valuable information and videos for job seekers and employers. New components of the website include:

- ♦ "It's ALL about YOU" developed in partnership with the Department of Labor and Industrial Relations, is designed to improve the marketability of those who have been unemployed long-term.
- ♦ Burning Glass Technology - job spidering technology that results in a larger number of job openings.
- ♦ ACT's National Career Readiness Certificate (NCRC) is a credential that demonstrates achievement in certain levels of workplace employability skills in Applied Mathematics, Locating Information and Reading for Information.
- ♦ Talify's services have been incorporated into JOBS.MO.GOV allowing job seekers to connect with career and volunteer opportunities by identifying top performers by interest, experience, geographic preference and behavioral strength.

## CMS Enhancements

Various system enhancements reduce the staff time needed for tracking tax credits.

## Industry Portals

Targeted industry portals help promote key industries identified by the state's Strategic Plan for Economic Growth. Five portals were launched for "Advanced Manufacturing," "BioSciences," "Energy Solutions," "Health Sciences and Services," and "Information Technology". These portals promote Missouri as the best place to expand or relocate a business in that industry.

## Missouri Education and Career Hotlink (MECH) Rewrite

The new MECH system expands available services to a much wider audience beyond only WIA participants. This allows anyone to explore information about jobs, occupations, qualifications and courses offered by educational institutions throughout Missouri.



### Governor's Joplin Challenge Website

The Governor's Joplin Challenge website was used to promote a partnership between DED, the Joplin Area Habitat for Humanity and Missouri's major athletic organizations, to build 35 new homes in Joplin to assist in the city's recovery from the 2011 tornado that devastated the area. The visually appealing website allowed volunteers to sign up to build homes with Missouri's athletic organizations and donate to the cause.



### WorkReady Communities

The Missouri WorkReady Communities Portal informs employers, chambers of commerce and city/county officials on the national Certified Work Ready certificate and opportunities available to Missouri communities. Successful communities that use the program and corresponding website will receive certification in the program, national and local recognition, and be able to take advantage of services offered by state and federal programs for those certified communities.

## Projects

### Enhanced Enterprise Zone (EEZ) System Modernization

DED administers the Enhanced Enterprise Zone (EEZ) tax credit program. EEZs are specified geographic areas designated by local governments and certified by DED. Eligible businesses can receive tax incentives for locating or expanding operations in distressed areas. Changes in 2010 Census block group geography and newer

estimation methods will require that the system be modified.

### Industry Portals

Targeted industry portals for "Financial and Professional Services" and "Transportation" are scheduled for launch in 2013.



# Elementary & Secondary Education

The mission of the Missouri Department of Elementary and Secondary Education (DESE) is to guarantee the superior preparation and performance of every child in school and in life.

## ITSD-DESE

System development by ITSD-DESE occurs in the Microsoft.NET, Microsoft SQL and SharePoint environments. This standardization has allowed ITSD-DESE staff to be more effective and efficient as they work to provide DESE core business functionality.

## Critical Systems



### Adult Learning (GED & AWARE)

The GED system, developed in-house on the Microsoft.NET platform, allows individuals, colleges, universities, verifying services and employers to view GED transcripts and individuals to make GED payments. AWARE is third party software that allows Vocational Rehabilitation (VR) staff to effectively track, coordinate, communicate, analyze, plan and budget complex services for approximately 30,000 VR cases.



### Educator Certification

The Educator Certification system allows all educators, both new graduates and existing, to submit online applications for certification. This includes the ability for educators and administrators to upgrade certifications and allows schools and districts to access the certification information they need. In the past year more than 69,893 certificates have been processed online.

### School Data (MCDS & MOSIS)

The Missouri Comprehensive Data System (MCDS) allows the public to view a wealth of data on Missouri's school districts and students on the MCDS public website. MCDS also has an internal component for DESE staff and a secure extranet for school districts to view data. MCDS runs on the Microsoft SharePoint platform.

The Missouri Student Information System (MOSIS) is third party software that allows school districts to upload data to DESE and allows DESE to manage that data.

### Grants Management (ePeGS)

The Electronic Payments and Electronic Grants System (ePeGs) tracks the budget, plans and expenditures for all grants and creates grant payment data. The Payment Management System maintains, processes and calculates the highest majority of all payments made by DESE. The Foundation Formula application is also a system critical for maintaining and calculating the factors involved in State of Missouri payments to Local Education Agencies.

# Accomplishments

## ASBR Rewrite

This project standardized an existing Annual Secretary of the Board Report (ASBR) system to the Microsoft .NET technology. The improved system is saving \$50,000 annually in licensing costs, reduces risk and saves FTE time.

## Database Standardization

Standardization on the MS SQL database environment has resulted in increased productivity for ITSD-DESE developers, reduced risk of system failure, and cost avoidance of more than \$16,000 per year.

## Educator Certification

DESE is required to perform background checks on all users in the certification system to comply with state regulations. They started the process in March. An automated process was created within the educator certification system to submit the records to Missouri State Highway Patrol (MSHP). This saves 660 hours of staff time annually.

## Mainframe Retirement

DESE's last remaining mainframe apps, the WIA (Workforce Investment Act) and GED systems, were migrated from Mainframe technologies, bringing to an end their 30+ years of use of this technology.

DESE systems now operate in a VB.NET SQL environment and ITSD-DESE developers all use Team Foundation Server 2010 as a code repository and collaboration platform. This standardization saves money, increases the productivity of ITSD-DESE developers, reduces risk for systems and makes it easier to integrate systems and move data.

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## Projects

### ePeGS Enhancements

Enhancements to ePeGS will improve the way that local education agencies (LEAs) use the system, creating efficiencies for them and DESE.

### Reporting Platform Standardization

This project will consolidate and standardize all DESE reports onto a common development platform (SSRS). This standardization saves money, increases the productivity of ITSD-DESE developers, makes it easier to integrate systems and easier to report on data.

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# Health & Senior Services

The Department of Health and Senior Services (DHSS) is the leader in promoting, protecting and partnering for health for Missouri.

## ITSD-DHSS

ITSD-DHSS developers have expertise working in Oracle PL/SQL, PHP, electronic health data exchange, and Microsoft.NET systems. They maintain and develop the systems that allow the department to perform its core functions.

## Critical Systems



### Women, Infants and Children (WIC) Info Network System

The WIC Information Network System, a data system built on SQL server and Microsoft .NET allows DHSS to certify and issue benefits, food and nutrition education to categorically eligible women, infants and children.



### Missouri Electronic Vital Records System (MoEVR)

MoEVR supports registration of Missouri vital events for the department and other users such as funeral directors, attending physicians, medical examiners and birthing facilities.

## Public Health Event Detection (ESSENCE)

The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) system inputs electronic emergency department (ED) data for the purpose of syndromic surveillance. Syndromic surveillance is the use of non-traditional data sources in order to detect public health events earlier than possible with other methods (laboratory confirmed diagnosis or physician diagnosis). Examples of syndromic surveillance data include over-the-counter drug sales, laboratory report orders and absenteeism rates. Missouri conducts syndromic surveillance using electronic hospital emergency department (ED) visits. ESSENCE can also be used for situational awareness during known health events by querying all ED visits for a particular syndrome or by keyword (such as carbon monoxide, animal bite, injury, etc). There are currently over 430 users of ESSENCE throughout the state who are either public health authorities or staff from hospitals that send electronic emergency room data.



### Immunizations System (ShowMeVax)

ShowMeVax is a web-based (VB.Net) application used by health care providers to view, record and track immunizations in the state immunization registry for clients they serve. There are 3,787 users from 821 health providers, local public health agencies and schools throughout the state utilizing the registry.

## Accomplishments

### Immunization Interoperability

This project developed the interface for providers to submit immunizations to the State Immunization Registry electronically using standardized Health Level Seven (HL7) messages. As of August, the State Immunization Registry was 265,000 doses ahead of this time last year because of the automation produced by this project.

### Online Order Forms

Orders for Back 2 School Immunization forms used by schools, general immunization forms used by health professionals and West Nile Virus educational materials used by health care professionals can now be ordered online. This saves order form mailing costs and reduces processing time.

### Health Blogs































New rural health and oral health websites and blogs are used to promote the health of Missourians.

### Health.mo.gov Mobile Optimization

The health.mo.gov website was optimized to allow citizens the ability to obtain health information from their mobile devices.

## ACCOMPLISHMENTS

**3,787** users of the  **ShowMeVax App**  
   from **821** health providers, local health agencies & schools

           
           
           
 = 10,000 caregivers

Approximately

**300,000**

**BACKGROUND SCREENINGS**  
processed on caregivers  
**EACH YEAR**

## **Family Care Safety Registry (FCSR) Modernization**

The FCSR legacy system was modernized from DELPHi to a web-based system (Background Screening and Employment Eligibility System - BSEES). The system works to promote family and community safety by providing background information on potential caregivers. Approximately 86,000 prospective new caregivers register each year and approximately 300,000 background screenings are processed on caregivers each year.

## **Grant Resources and Opportunities Warehouse (Grow-Mo)**

Grow-Mo is a SharePoint site developed by DHSS that allows state agencies to coordinate and communicate with regard to grant writing and grant opportunities as never before possible.

# **Projects**

## **Child Care System Modernization**

This project will modernize the child care legacy system from DELPHi technology to Microsoft.NET.

## **Missouri Information for Community Assessment (MICA) Modernization**

MICA is a web-based data query system for health statistics and data. Broad coalitions of stakeholders rely on MICA as their primary source for obtaining accurate, reliable health statistics for the state of Missouri and its 115 counties. Legislators, consumers, health care providers, business coalitions, local public health agencies, community organizations, health programs, community planners, researchers and other state agencies use the MICA tools for a myriad of reasons including conducting health assessments, to seek federal and other sources of funding, and to measure and evaluate progress of current initiatives. Modernization of this legacy system will create a common data architecture, for accepting and disseminating data for public health programs.

# Higher Education

The Coordinating Board for Higher Education (CBHE), the Missouri Department of Higher Education (MDHE), and the state's institutions of higher education will work collaboratively to support a diverse system of affordable, accessible, high-quality educational institutions that demonstrate student learning and development, encourage and support innovation, foster civic engagement, enhance the cultural life of Missourians and contribute to economic growth.

## ITSD-DHE

ITSD-DHE developers have expertise in Java and work to maintain and develop the systems that allow MDHE to perform its core functions.

## Critical Services



### Financial Assistance for Missouri Undergraduate Students (FAMOUS)

FAMOUS is used to administer financial aid for Missouri Students attending Missouri's Private 2 and 4 Year, Public 2 and 4 Year and Other Nonprofit Post-Secondary Institutions (PSIs). FAMOUS is used by PSIs to request awards and by High Schools to assist students in preparation for attaining grants and scholarships. Awards totaling more than \$48 million for A+, Access Missouri, Bright Flight and Ross Barnett Scholarship Programs were distributed to 62,430 students attending Missouri PSIs thus far for the 2012 fall semester via FAMOUS.



### Program Inventory System

This system is used to maintain a database of demographical information about institutions of higher and continuing education in Missouri, their available course offerings and degree programs. This database is the foundation for a public-facing web site search used by persons seeking information about higher education offerings throughout Missouri.



### Proprietary Schools System

This system is used to obtain student enrollment and student exit information for training and courses offered by proprietary schools. Proprietary School personnel and students are able to enter student enrollment data and student exit data. The application provides useful search tools for both MDHE and proprietary schools.



### Customer Relationship Management System

Tracks visits to MDHE, contacts, requests for speakers and workshop registrations.



### Publications System

Publications is an online ordering, fulfillment and inventory system for MDHE publications available to constituents.

## Accomplishments

### FAMOUS Fund Source Enhancements

These enhancements allow additional funding sources and funding appropriations to be added and/or modified mid-year for all programs administered through FAMOUS. The project streamlined funding allocations and reporting for all award programs, eliminated manual tracking and reporting and eliminated manual fund reconciliation.

### NowForLater.org Website

The NowForLater.org website helps raise awareness of the importance of school readiness, the need for quality early learning opportunities and the role of family and early childhood programs among parents, professionals and community leaders.

### Program Inventory System Upgrade

The Program Inventory System was updated to JAVA JSF from an unsupported Websphere platform using JAVA SWING GUI. This ensures system sustainability and increases IT staff productivity.



### Student Portal

The Student Portal provides a platform for MDHE to communicate about financial aid and other college-related information with the people who need that information most – students and their families.

In addition to the above conveniences afforded to students and their families, the Student Portal is expected to eliminate inefficient phone calls and mailings for MDHE.

#### Features

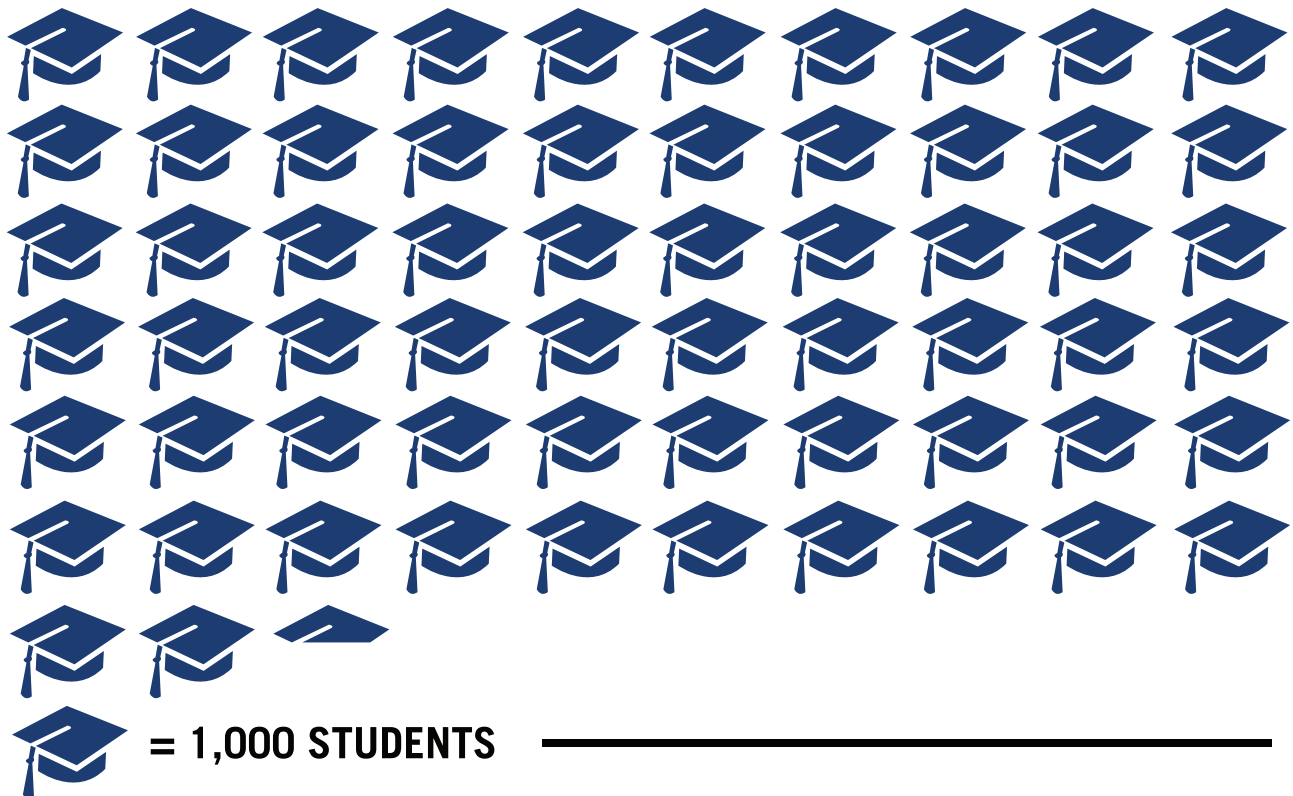
- ♦ Access information about how to prepare for and pay for college.
- ♦ Access information about college degree and program offerings.
- ♦ Access information about financial aid and scholarship offerings and the FAFSA process.
- ♦ Check financial aid and scholarship eligibility and payment status.
- ♦ Update financial aid application information.
- ♦ Receive notifications and communicate with MDHE.

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# \$48,947,085.49

awarded through A+, Access Missouri, Bright Flight and Ross Barnett Scholarship Programs

## DISTRIBUTED TO 62,430 MISSOURI STUDENTS



## Projects

### Academic Program Actions

An automated process to receive and track proposals by higher education institutions for new and changed curriculum (academic program actions) is being developed that will replace a paper process.

### Program Inventory and Degree Search

The college degree search available on the MDHE website is being updated with improved functionality and accessibility for all devices.

# Insurance, Financial Institutions and Professional Registration

The mission of the Missouri Department of Insurance, Financial Institutions and Professional Registration (DIFP) is to efficiently and effectively encourage a fair and open market for consumer service industries.

## ITSD-DIFP

ITSD-DIFP developers have expertise working in Oracle, Visual Basic and SharePoint. They maintain and develop many of the systems that allow DIFP to perform its core functions.

## Critical Systems



### Professional Registration System (PROMO)

PROMO is used by The Professional Registration Division of DIFP when performing licensing and practice review functions. DIFP's 40 professional boards and commissions license and regulate the activities of approximately 430,000 individuals representing 240 different trades and professions. This system processed approximately 46,000 applications and 191,000 biennial renewals during 2012. Of those 191,000 renewals, approximately 110,000 were performed through the online renewal portion of the PROMO system.



## Optical Imaging System

The Optical Imaging System indexes the data stored in the PROMO system and provides electronic document retrieval for all 40 professional boards. This system is currently a repository for over 18 million images with approximately 1,000,000 to 1,500,000 images being added annually.





### Cash Receipts System

The Cash Receipts System tracks and coordinates incoming revenues and reimbursements with invoices and electronic funds transfer.



### Insurance Invoicing System (MIDIS)

MIDIS is used to create, track and maintain 5,000 invoices annually.



### Integrated Regulatory Database Systems (IRDS)

IRDS supports the Division of Insurance's day-to-day administrative functions and processes, including communications with the National Association of Insurance Commissioners (NAIC).



### Taxation System

The Taxation System records, tracks and processes the annual tax responsibilities for Missouri insurance companies, surplus lines producers and captive insurance companies.

## Accomplishments

### E-Docs

E-docs is a central, secure repository for many request forms and approval documents required internally by DIFP. E-docs converted sixteen paper forms to electronic ones using SharePoint, InfoPath, email and workflows. E-docs allows for ease of tracking the status of a document and notification to users if they have requests which need their attention. E-Docs is a green initiative saving DIFP almost \$45,000 annually in FTE and paper costs.

### Legal Tracking System

This SharePoint application is designed to meet the needs of Insurance Division Legal Section. The application uses document sets, workflows, alerts and spreadsheets to aid the Legal staff in the tracking and reporting on legal cases and issues. This central, secure repository for all legal documents is saving \$16,000 annually in FTE and paper costs.

### Title T-6 E-Submission

This project automated reporting of title companies, promoting compliance, increasing revenues and eliminating errors. The system allows industry members to complete a standard PDF form and email the PDF to DIFP. Among its features, the system programmatically extracts the data from the PDF, validates the data and stores data into the database without the need to manually key the data.

# Projects

## Database Standardization

This project will consolidate and standardize DIFP databases to the MS SQL platform. This standardization saves money and increases the productivity of ITSD-DIFP developers.

## Deductible Option Surcharge (DOS) Assessments

A method for emailing DOS assessments is being developed to replace a paper mailing.

## Medical Malpractice Collection Automation

An online portal will allow the industry to report medical professional liability claims.

## Professional Registration Licensure System

The existing licensure system for Professional Registration (PROMO) went into production in 1999 and serves all 40 boards. The process for procuring a modern commercial-off-the-shelf (COTS) solution is underway. The goal of this multi-year project is to upgrade the functionality of the system while providing for a more modular approach in meeting the needs of the individual boards. The future system will improve usability for the state's approximately 430,000 licensed professionals and employ more efficient self-service functionality.

# Labor and Industrial Relations

The Department of Labor and Industrial Relations (DOLIR) works to promote industry and labor and protect the rights and safety of Missouri's workforce.

## ITSD-DOLIR

ITSD-DOLIR application development occurs largely in the Mainframe/COBOL DB2 environment. There are public-facing Java/Websphere applications that complement those Mainframe applications. Other web application development is conducted in classic ASP and Microsoft .NET.

## Critical Systems



### Unemployment Benefits System

This system is used to process unemployment benefit payments to unemployed Missouri workers. The system facilitates prompt payment of unemployment benefits to eligible claimants via direct deposit, debit card, or check as necessary. The system processes Combined Wage Claims (CWC) for unemployed workers who have wage credits in other states, claims for federal workers and former members of the military. It also manages child support withholding, SSN and alien verification, Form-1099s for claimants, the imaging of paper claim forms, work search verifications and waivers, tax withholding requests, adjustments to claims, confidential information requests, and images documents. This system is being replaced during the UIM project described below.

### Unemployment Tax System (Contributions & USTAR)

The Contributions (Tax) Application and USTAR are used to handle the collection of Unemployment Insurance (UI) taxes from employers in the state. The system provides a means to establish and maintain accounts for employers, calculates tax rates and makes liability determinations. The system processes quarterly Contribution Wage (CW) reports, payments from employers, adjustments, refunds to employers and benefit charges. These systems are being replaced during the UIM project described below.

### Workers' Compensation System (AICS)

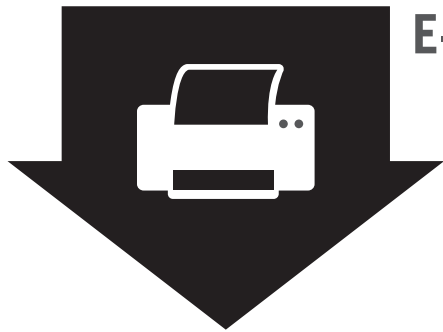
The Automated Integrated Claims System (AICS) assists in administering the Missouri Workers' Compensation Law and applicable rules. The system captures images and data from required documents such as First Reports of Injuries, Claims for Compensation, Answers to Claims for Compensation, Notice of Commencement/Termination of Compensation, medical records and documents relied upon by administrative law judges in approving Compromise Stipulations of Settlement and issuing awards on disputed cases. AICS was developed primarily with the 2E development environment and resides on the System i (AS/400), utilizing DB2 relational database management system.

## Accomplishments

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**\$1,872,908.59 TAXES RECLAIMED**

Through 10,117 identified misclassified workers



**E-TRANSCRIPTS** reduced the printing of nearly

**300,000  
PAPER DOCUMENTS**

### Electronic Transcripts

The Electronic Transcript project and improvements to the Remote Claims Processor program resulted in reduced mailing costs. Approximately \$20,000 per year in mailing costs has been eliminated.

### Online Forms

Several online forms were developed to reduce mailings and paper processes including one that allows persons to report worker misclassification.

### Contributions Enhancements

During the past year, numerous manual processes were automated for Division of Employment Security Contributions, saving an estimated 284 days of staff time per year.

### Farmsafety.mo.gov

This website is a result of collaboration between MDA and DOLIR and is intended to reduce injuries and fatalities that occur on family and commercial farms.



## State Information Data Exchange System (SIDES)

SIDES was implemented 9/20/12, and in its first week of production, successfully sent 5,340 employee separation records to employers (containing details provided by claimants on jobs departed), and processed 302 employer claim responses. The project manager on the national SIDES team has praised Missouri for being ahead of other states with this initiative. Previously, these processes required data to be printed on forms, stuffed in envelopes and physically mailed, with responses returned by fax or mail and DOLIR staff manually scanning the documents. In addition to elimination of delays due to mail delivery time, this project is saving Missouri citizens the costs of paper, envelopes, printing, postage and staff time.

### Liabe Agent/Data Transfer (LADT)

The project developed programming to expand the use of incoming (agent) data in the Liabe/ Agent Data Transfer (LADT) available through the Interstate Connection Network (ICON). This improved the recovery of overpayments, prevented some overpayments and identified MO residents in need of re-employment services. The preparation and processing of overpayment recovery letters sent to other states previously took hours and now takes minutes. Other states have expressed interest in the Missouri process. Cross match reports ensure that multiple states are not paying for the same claim, the claimants are participating in the correct program, and the correct state is paying for the unemployment insurance benefits claim.

### Worker Misclassification Assessment (1099 Fraud)

ITSD and Labor worked together to create an assessment to help potential misclassified workers identify 1099 Fraud. Because of these efforts, Missouri has identified 10,117 misclassified workers in Fiscal Year 2012, a 5,196 percent increase from 2008 (191 misclassified workers identified).

### Workers' Compensation Awards

This project provided for the electronic capture, validation and delivery of Workers' Compensation awards to recipients providing email addresses. To date, over 700 awards have been sent electronically. This project saves staff time, paper, postage and mail delivery time and provides better customer service.

## Projects

### Labor.mo.gov Content Management

The labor.mo.gov website is being converted to utilize the Drupal Content Management system. This will allow DOLIR employees to update the website directly, eliminating the need for ITSD intervention in that process.

### Unemployment Insurance Modernization (UIM)

A multi-year UIM project will reduce risk to the State from operating the current legacy UI Benefits and Tax systems. It will also reduce mailing costs, decrease paper usage, reduce returned mail, reduce claims processing time and reduce contribution wage report processing.

# Mental Health

The Department of Mental Health (DMH) provides prevention, treatment and promotion of public understanding for Missourians with mental illness, developmental disabilities; drug, alcohol and gambling addictions.

## ITSD-DMH

ITSD-DMH performs application development primarily in the Microsoft .NET environment.

## Critical Systems



### CIMOR

CIMOR, used by state facilities, regional offices and all contracted provider organizations, collects and manages information about receiving treatment from DMH and DMH contractors.

CIMOR:

- ◆ Tracks consumers and their information including such things as diagnosis, treatment plans and other critical health care information
- ◆ Contains all vendor contract information related to consumer care
- ◆ Creates professional claims submitted to medicaid for services rendered by the Department
- ◆ Submits requests to OA's accounting system to process checks for department providers
- ◆ Provides storage of data and information used for reporting and data analysis
- ◆ Tracks department funding and program expenditures



### Claims Management System (CMS)

CMS creates and submits DMH Facility Healthcare Claims to Medicaid, Medicare and insurance companies. Unlike CIMOR's internal claims which processes only professional claims for Medicaid, CMS is designed to submit and process all types of health care related claims, professional, inpatient, outpatient, ancillary and dental claims.

CMS is loosely connected to CIMOR and uses the same electronic data processing as CIMOR for sending and receiving HIPAA Compliant Claims and Electronic Explanation of Benefits (EOB).

Creates and submits claims for 34 DMH facilities and can be used to support contract provider billing in the future.

Bills approximately \$125 million annually – 14% of the department's total billings.

Is HIPAA compliant and supports the latest diagnosis standards.

# Accomplishments

## Event Management Tracking System (EMT 2.0)

EMT 2.0 tracks all events occurring in DMH facilities and provider sites relating to consumers, personnel issues, environmental issues, etc. This information is used to report to outside entities as well as conduct risk management and QA controls. EMT 2.0 updated and improved EMT 1.0. The improved EMT 2.0 includes simpler screen navigation, streamlining of the data being collected and improved integration with CIMOR. DMH contract providers will be able to enter their own events into CIMOR in the near future using a Web interface.

## Wireless LANs

Wireless local area networks were installed at CPS hospitals to enable tablets to use the EMR system. This will allow DMH medical staff to enter and view information at the point of service, increasing productivity.

# Projects

## Electronic Medical Records (EMR)

An electronic medical records system specifically designed for psychiatric services is being developed. Several sites are piloting this effort which will be expanded to all Division of Comprehensive Psychiatric Services (CPS) inpatient adult facilities. EMR allows DMH medical staff to enter and view information at the point of service, increasing productivity.

## ICD-10

The Department of Health and Human Services (DHHS) published a Final Rule under the Administrative Simplification provisions of the

Health Insurance Portability and Accountability Act (HIPAA), which mandated changes to Diagnosis Code Sets used for Medicaid/Medicare billing and for all HIPAA transactions. The Final Rule mandates use of the new code sets for dates of service from October 1, 2013 and after. This is a federal mandate with which all U.S. healthcare entities covered by the HIPAA laws must comply. This will affect CIMOR and other medical billing systems.

## Missouri Employees Learning System (MELS)

MELS is being developed using the open-source Moodle platform and will replace the existing eLearning online learning management system. MELS is customizable, allowing greater flexibility in the development of training courses and provides tracking and reporting capabilities.

## Pharmacy System

The Meta Pharmacy Systems software solution will replace the existing legacy pharmacy software Quadramed. The META software is being customized for Fulton State Hospital which processes 1.9 million doses of medication and over \$1.5 million in Medicare Part D reimbursements annually. Once the Fulton site is completed, the META system will be replicated to the six other DMH pharmacy sites throughout the state.



# Natural Resources

The mission of the Department of Natural Resources (DNR) is to protect, preserve and enhance Missouri's natural, cultural and energy resources.

## ITSD-DNR

ITSD-DNR performs application and web development on the Java/Websphere and Microsoft .Net platforms using both SQL and DB2 database platforms. There are also numerous distributed Microsoft Access solutions in place. Other web development is conducted using classic ASP technology. The Division of State Parks website employs Drupal, the open source content management system.

## Critical Systems



### Campground Reservation System (CRS)

This third party online transactional system is used by the public to reserve State Park campgrounds and process online payments.



### ePermitting System

ePermitting allows the public to apply for, pay for and receive Land Disturbance permits from DNR via an IBM J2EE JAVA and DB2 web-based system.

### Environmental Sampling - Laboratory Information Management System (LIMS)

LIMS stores data from sample analysis from Environmental Services Program (ESP) testing of Missouri waterways, air and soil for more than 200 different compounds, including E. Coli. The data is provided to the public via the [dnr.mo.gov](http://dnr.mo.gov) website and is used to determine waterway/beach closures. This is a third party application with data residing in MS SQL.

### Soil & Water Quality - Missouri Soil & Water Information Management System (MoSWIMS)

MoSWIMS tracks an annual \$26 million cost-share program for soil conservation efforts within the state. Districts process contracts more efficiently and landowners see a faster turnaround on receiving their reimbursement check. This JAVA system was used by the State of Missouri's Drought Response team during the 2012 drought.

### Well Information Management System (WIMS)

WIMS contains information on location, construction and some geology for most wells constructed after October 1986 in the state. WIMS is a web-based JAVA system.



### **Air Quality - Missouri Emissions Inventory System (MOEIS)**

MoEIS is a JAVA system that manages information about regulated facilities, enforcement classification, operating permit type and operating status for air quality. The system allows regulated facilities to input emissions data required by the EPA.



### **Water Quality - Missouri Clean Water Information System (MoCWIS)**

MoCWIS is used by DNR to permit, track and monitor facilities that discharge to waters of the state. This JAVA system also tracks modifications to the state's water quality standards.



### **Field Inspections - Assistance Compliance Enforcement (ACE)**

ACE is a Microsoft .NET system that enables the Division of Environmental Quality to track assistance to facilities via environmental visits, investigation of environmental concerns, inspections for compliance and enforcement to return facilities to compliance.

### **Hazardous Waste - Site Management and Reporting System (SMARS)**

SMARS is system used by the Hazardous Waste Program to register and track hazardous waste sites and clean-up operations across the state. This application is a candidate for conversion to a web-based application. It is currently a Microsoft Access solution with data residing within Access itself.



### **Weatherization (MoWAP)**

DNR's Division of Energy currently manages grant funding dedicated to assisting low-income families in weatherizing their homes. The Missouri Weatherization Assistance Program (MoWAP) system allows DNR staff to review these invoices and approve payment through SAM II. MoWAP is a web based application written in JAVA.



### **Solid Waste Management - Fees and Taxes (FAT)**

FAT is an application used by the Hazardous Waste Program to track fees and taxes on hazardous waste generators, haulers and others dealing with hazardous waste. This application is a candidate for conversion to a web-based application and expansion to additional programs. FAT is currently a Microsoft Access front-end solution with data residing in DB2.

# Accomplishments



## Permit Action Management System (PAMS) Modernization

PAMS was modernized and standardized from an MS Access technology to Microsoft .Net. The system enables users to much more rapidly handle permit action management related business functions.



## ePermitting System

The ePermitting system allows land disturbance permit holders to submit applications online. Previously paper applications were mailed. This system uses sophisticated self-service mapping techniques and saves the equivalent of 4 FTE in staff time versus the old system.

## ACE Modernization

ACE was modernized to increase productivity.

## TRI Data Flow System

The Environmental Protection Agency (EPA) has established an Environmental Information Exchange Network. This is a partnership among States, Territories, Tribes and EPA that allows these entities to exchange environmental information electronically, securely through the Internet using XML files. The exchange of environmental information is generically referred to as a "flow." This system established the Toxic Release Inventory (TRI) flow. In this case the flow of data is from the EPA to the state. This data flow increases the validation and accuracy of TRI data through the Exchange Network.

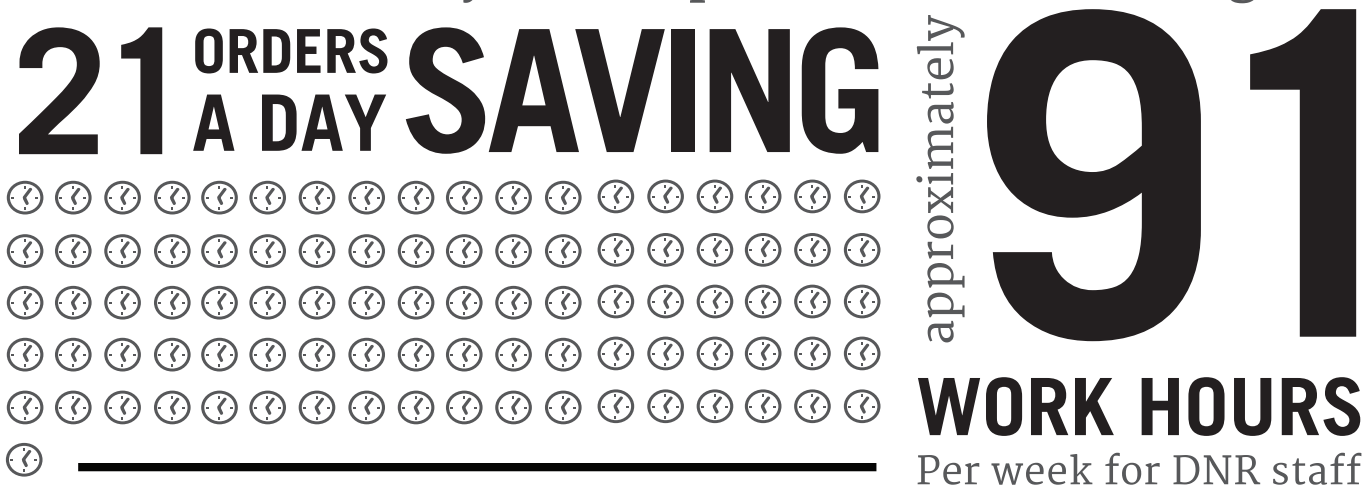


## LSI (Land Survey Index - Public Purchase)

DGLS provides surveys, field notes and other documents to the land surveyor community. This project enabled the public to locate and purchase land survey documents online using a web application. After purchase, the documents may be downloaded and the surveyors are able to conduct research or other work more efficiently and at any time of the day or night. The completion of this project allows for the reduction of state staff time spent gathering documents and packaging for purchase by the public, reduction of telephone and email traffic containing requests and enables staff to concentrate on the work of preservation of land survey documents. When deployed in October, the ITSD-built Land Survey Index has been averaging about 21 orders per day. More importantly, the automation of the process is saving approximately 90 DNR staff hours per week.

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The Land Survey Index processes an average of



## Projects



### Capital Improvements Tracker

The system used by Parks for requesting and tracking capital improvement projects will be modernized from a Lotus Notes, Access and Excel system to a MS .Net system to increase productivity.



### Environmental Information Exchange Network Data Flows

Several projects will enhance DNR's capabilities to share data with other entities throughout the previously described Environmental Information Exchange Network.

# Public Safety

The Department of Public Safety (DPS) coordinates with public and private entities to assist with crime prevention and investigation, protect against threats of terror, ensure public safety and provide emergency response, care and recovery assistance.

## ITSD-DPS

ITSD-DPS application development occurs on the Microsoft.NET platform. There are AS/400 legacy systems present that will be modernized to the .NET platform in the future.

The Missouri State Highway Patrol (MSHP), Missouri National Guard and the Missouri Gaming Commission remain unconsolidated and employ their own IT units.

## Critical Systems



### Alcohol Licensing & Excise Tax Collection

The Alcohol and Tobacco Control (ATC) Liquor License System tracks license information including owners, financial, legal description, violations, tax collection, keg registration, inspections, primary source and more. It is an AS/400 COBOL based system and is a candidate for modernization as resources permit. This system currently tracks 23,953 active liquor licenses. During FY 2012, it was used to renew 23,763 licenses and collect over \$30 million in excise taxes.



### Computer-Aided Dispatch and Records Management System (CAD/RMS)

The Missouri Capitol Police (MCP) Computer-Aided Dispatch and Records Management System (CAD/RMS) is a Visual Basic application designed to help dispatch MCP resources to the daily activities in and around the Capitol. This system is used to track approximately 40,000 calls and activities annually.



### Missouri Uniform Law Enforcement System (MULES)

MSHP provides the Missouri Uniform Law Enforcement System (MULES) to nearly 10,000 criminal justice users statewide. The system processes millions of transactions each year - including driver and vehicle license checks, stolen vehicles, missing persons, probation/parole and criminal history.



### MSHP Computer-Aided Dispatch System

MSHP's Computer-Aided Dispatch system processed approximately 500,000 incidents that were initiated by calls from the public, or by the officers themselves each year.



### Resource Request System

The State Emergency Management Agency (SEMA) Resource Request System is used to enter and track resource requests during a disaster. It is a Visual Basic/.Net system.

## Accomplishments

### ATC Website

The ATC's website was redesigned to make it easier for licensees to obtain information on licensing and excise tax requirements. The redesigned website has reduced phone calls to ATC from licensees.

### Fire Safety Website

The new Fire Safety website will help Missouri's citizens be more aware of safety issues. The site is better organized to provide information about the services provided by the agency. These services include safety tips for everyone, training opportunities for fire protection personnel, inspection services to businesses and care facilities, and fire investigation services.

### Storm Aware Website

The Missouri Storm Aware website educates Missourians about tornadoes and severe storms through engaging videos that inform them of what actions to take when severe weather strikes. A list of severe weather alert subscriptions is included. The project received the **2012 Governor's Award for Quality and Productivity (GAQP) for Innovation** because it improved an existing process/product/service to create an "added value" to state government.

## Projects

### Veteran's Cemetery Database Consolidation

Currently, the five Missouri veteran's cemeteries rely on MS-Access databases for tracking the applications and approvals of veterans and their spouses/dependents for burial in a state cemetery. These databases will be consolidated to expand reporting capabilities and coordinated backup.

### WebEOC

SEMA purchased the WebEOC software that is designed to track resource requests, status reports and other event driven data. The software is deployed to a public website for use by entities in the Emergency Operations Center and those on the ground at a disaster site. The system will also be used to manage local events for county and city management agencies.

# Revenue

The mission of the Department of Revenue (DOR) is to facilitate the proper functioning of state and local government by accurately and efficiently collecting and distributing state and local revenues and to support public safety by effectively administering laws related to motor vehicle sale and registration and driver licensing. The Department accomplishes this mission by following the law; fostering innovation in its operations; developing cooperative relationships with other public and private entities; clearly communicating with the public; and treating everyone fairly and with respect.

## ITSD-DOR

ITSD-DOR supports DOR in performing its core functions by providing IT services and maintaining DOR's mainframe and distributed systems.

## Critical Services



### Computer Assisted Collections System (CACS)

The Computer Assisted Collections System (CACS) centralizes delinquent revenue collection functions for all major taxes, including sales, corporate, individual and withholding taxes. This system is used by DOR to document contacts from delinquent taxpayers and to set up payment plans for them. There are over 994,000 delinquent cases maintained in the system.



### Sales and Use Tax System (MITS)

The Missouri Sales and Use Tax System (MITS) processes all sales tax and use tax returns filed by Missouri businesses or companies doing business in Missouri. The system processes electronic and paper returns and payments, completes audit checks on the data filed and initiates the required credits, billings and adjustments as necessary. In the past year, this system processed more than 600,000 returns.

### Driver Licensing Systems (MODL, MEDL & associated AAMVA systems)

The Missouri Driver License System (MODL) is the central driver license record keeping system that contains license issuance, withdrawal, convictions, suspensions, revocations, disqualifications, reinstatements and driver status information. The system maintains over 7,000,000 driver and non-driver license records. The Missouri Electronic Driver License System (MEDL) is the mechanism for capturing driver and non-driver license applications processed through the DOR. There are several associated systems primarily maintained by the American Association of Motor Vehicle Administrators (AAMVA) that are required for driver license issuance.





### **Corporate Income Tax System (COINS, BAMS & CAFE)**

The Corporate Income Tax System (COINS) processes all corporate income and franchise tax returns for DOR. This system accepts data received electronically from various sources, performs audit checks and alerts DOR staff as to any errors encountered. The system produces all billings, refunds, notices and adjustments for all corporations filing tax returns in the state. In the past year, more than 149,000 returns were processed. The Batch Monitoring System (BAMS) and the Corporate and Franchise Entry (CAFE) are associated data-entry systems.



### **Individual Income Tax System (MINITS & SpeedUp)**

The Missouri Individual Income Tax System (MINITS) processes all individual income tax and property tax credit returns. This system merges data received from three electronic sources, performs audit checks and alerts DOR staff to errors on filed documents. This system issues notices, refunds, billings and adjustments on all individual income tax returns filed. There were more than 3,100,000 returns processed through this system during the past year. SpeedUp is the data-entry system for MINITS.

## **Motor Vehicle Systems (GRS, Marine, Titles & TRIPS)**

The major motor vehicle systems include GRS, Marine, Titles and TRIPS. The General Registration System (GRS) maintains the current ownership and titling of vehicles and provides current and historical information on the registration of motor vehicles. The Marine system maintains the titling and registration of marine and watercraft vehicles and titles boats and motors by generating and distributing legal certificates of ownership. The Titles system provides information on motor vehicle titling and lien holders, prints the ownership document and records the lien information for the citizen. The Title & Registration Intranet Processing System (TRIPS) is the mechanism for web-based data capture of motor vehicle registration and titling transactions from the license offices. There are more than 12,000,000 records in GRS.



### **Withholding Tax System (WITHTX)**

The Withholding Tax System (WITHTX) processes all Missouri withholding tax returns. This system produces all billings, notices and adjustments for businesses required to withhold and remit Missouri income tax for their employees. This system also interacts with the state accounting system to issue refunds on tax over-payments. This system processed more than 900,000 returns in the past year.

## **Tax Compliance System**

The Tax Compliance System (TCS) includes an Enterprise Data Warehouse (EDW), Case Audit Management System (CAMS) and WebFocus reporting. The system is used by auditors to manage cases. The system is also used extensively for non-compliance identification and resolution, and has generated \$344.6 million in additional revenue since its inception in 2005. Additionally, WebFocus is used to generate a wide range of reports from the EDW. The EDW is a Teradata product utilizing its own DBMS, housed in a distributed environment provided by Teradata. CAMS is a customized vendor-supported application that uses the EDW as well as its own SQL database. CAMS mobile functionality allows the auditors to use all of the system while at the audit site, then synch the new and revised information back to the case stored on the network without duplication of effort.

clerks collected fees in miscellaneous accounting systems and then forwarded the documentation to the central office where staff was required to key the information into a mainframe system. This process is now streamlined and the entire process is completed upfront when an applicant completes a transaction in the license office.

This project resulted in license offices processing thousands of permanent placard transactions, relieving the central office from performing hundreds of hours of data entry on those transactions.

## **Downloadable Sales/Use Tax Reports**

Cities, counties and districts now download their sales/use tax reports rather than receive them on CD. As a result of this change, the manual mailing of this information will be eliminated and local jurisdictions will be able to get their reports at their convenience. This will save on the cost of CDs, envelopes and postage, as well as the time needed to create and mail the CDs.

# **Accomplishments**

## **Corporate Income Tax Electronic Filing Enhancement**

DOR changed the type of schema used on filing corporate income tax returns through Modernized Electronic Filing (MeF) from “category based” to “forms based,” which made it easier for software vendors to participate in the program. This project resulted in cost savings of over \$28,000 in calendar year 2012. Three additional vendors, for a total of ten vendors, are now supporting the corporate electronic filing program and over 26,000 more returns have been electronically filed using the updated MeF program.

## **Disabled Placard Functionality in TRIPS**

TRIPS was updated to process new, renewal, replacement and additional permanent disabled placard transactions. Previously, license office

## **Enterprise Content Management Enhancements**

In April, DOR began imaging Financial Institutions’ tax returns. In July, DOR began imaging new MV refund and Delfee Documents. In September, DOR began imaging tax credit certificates. Imaging the documents provides for more efficient processing and provides immediate electronic access to the information without having to physically review the paper document in file cabinets. It also frees up floor space.

## **Electronic Court Notification**

Changes were made to streamline the systems that process all major tax types in order to allow DOR to send administrative judgments to the courts electronically.

## **Marine Title and Registration Functionality in TRIPS**

TRIPS was updated to process marine original, duplicate and corrected titles and new registrations. Previously, license office clerks collected fees in miscellaneous accounting systems and then forwarded the documentation to the central office where staff manually keyed the information into a mainframe system. This process is now streamlined and the entire process is completed upfront when an applicant completes a transaction in the license office. This reduces errors and saves staff time.

## **Personalized Plates Reservation System**

The online personalized plate reservation system went fully operational in January. It allows Missouri citizens to reserve and pay the reservation fee online for a personalized license plate.

## **Sales Tax E-file Enhancements**

Enhancements were made to the sales tax electronic filing system to allow automatic lookup of rates and to provide a list of valid district combinations.

## **Use Tax on Out-of-State Dealer and Non-Retail Vehicle Sales**

In January 2012, the Missouri Supreme Court issued a ruling stating that use tax should be imposed on all non-retail vehicle sales. Eight systems were enhanced to impose use tax on qualified sales.

# **Projects**

## **Commercial Driver License Information System (CDLIS) Modernization**

A federal rule was published requiring all states and jurisdictions to provide the upgrades necessary to comply with federal information

technology and security standards by upgrading the communications, integrating medical certificate information, improving self-auditing capabilities and providing for the electronic exchange of expanded information needs for issuance of commercial driver licenses.

## **Electronic Court Notification Enhancement**

Twenty-three new counties will be added to the electronic court notification project that allows DOR to send administrative judgments to the courts electronically.

## **Integrated Revenue System**

This multi-year project is for a department contract to acquire and configure a commercial-off-the-shelf (COTS) system and related software tools provided by Revenue Solutions Inc. (RSI) began in 2012.

DOR currently uses a combination of software systems, both mainframe and server based. The most critical of these systems were built on 30-year old technology that is increasingly difficult and expensive to use and maintain. In addition, since the various tax systems were built independently, communication between systems is limited and numerous interfaces between systems are required to allow the systems to communicate at all. Changes are not consistently applied across all systems. The pool of personnel resources with the skills to maintain these old technologies continues to get smaller. The difficulty of timely modification of the legacy systems to incorporate legislative changes and technology advancements will increase over time. The aging systems also limit DOR's ability to leverage current technology to realize processing savings or efficiencies.

An up-to-date, integrated revenue system will provide a myriad of benefits for the State of Missouri.

Some of the general benefits of a new system include:

- ♦ Reduced operating and maintenance costs, especially in the area of return processing
- ♦ Tools that enhance collections management, audit selection and non-filer discovery
- ♦ Increased voluntary compliance
- ♦ Faster access to taxpayer data, both by department users and through direct taxpayer access
- ♦ More frequent data warehouse refreshes, resulting in more accurate analysis
- ♦ Improved productivity through workflow management
- ♦ Elimination of business silos, allowing DOR to view all taxpayer activity across tax types
- ♦ Better modeling and faster implementation of tax law changes
- ♦ More reliable data, with better analytical capabilities
- ♦ Improved customer service

non-tearing temporary permits and make the information associated with issued temporary permits immediately available to Missouri law enforcement. These provisions must be implemented by July 1, 2013.

### Photo Validation System

The Photo Validation System will automatically compare each MEDL-CI transaction photo against a current database of approximately 10,000,000 photos to detect potential fraud. DOR will have the ability to hold and review potentially fraudulent transactions, then approve them for processing or deny and investigate.

### Missouri Electronic Driver License System - Central Issuance (MEDL-CI)

This project redevelops the current Missouri Electronic Driver License - Over The Counter (MEDL-OTC) system to a central issuance system (MEDL-CI) in which citizens will be mailed the license instead of receiving it while in the license office. This project modernizes the legacy MEDL application, replaces outdated equipment and enhances security of the documents issued. The transition from OTC to mailing licenses is scheduled to begin in the license offices in December of 2012 and all offices will be transitioned by April 2013.

### Motor Vehicle Temporary Permits

In 2012, Senate Bill 611 added provisions to Section 301.140, RSMo, requiring DOR to produce or allow others to produce weather resistant,

# Social Services

The Department of Social Services (DSS) works to maintain or improve the quality of life for Missouri citizens.

## ITSD-DSS

ITSD-DSS application development and maintenance occurs on multiple platforms. Legacy applications are enhanced and maintained using COBOL or CA-GEN with a mainframe DB2 or IDMS database. CICS is used for online transactions and uses a 3270 or web browser presentation. New and future applications are developed using Microsoft .NET with DB2 or SQL database and a web browser presentation. CICS web services are used to communicate between .NET and CICS applications.

## Critical Systems



### Family and Children's Electronic System (FACES)

FACES meets the federal requirements for a State Automated Child Welfare Information System (SACWIS). FACES integrates eight separate Child Welfare applications into one seamless system that includes the Child Abuse Hotline, Children's Services, Program Eligibility, Program Authorizations, Family Centered Services, Intensive In-Home Services, Alternative Care, Child Accounting, Common Vendor, Contracts and Licensing and Children Services Payments. This system serves as a comprehensive automated case management tool that supports Children's Division staff and contracted Case Managers. FACES system development and maintenance occurs on multiple platforms. Most of the application resides on the mainframe (COBOL) platform, but some new functionality has been developed using the .NET framework on a server platform. Over 124,000 calls are taken annually by the Child Abuse Hotline and entered into the FACES application. Also, on a monthly average the FACES application processes over 10,500 family and 30,600 children cases.

### Missouri Automated Child Support System (MACSS)

MACSS is responsible for collection and disbursement of child support through enforcement of existing judicial and administrative orders, location activities, paternity establishment, establishment of orders, and various other activities. Since implementation of centralized collections, this system distributes child support payments. It is an AllFusion Gen/Mainframe based system that has been customized for the State of Missouri and requires ITSD staff to ensure that the system is continually updated and in compliance with state and federal statutes and regulations as well as the Missouri Child Support Policy. Annually, MACSS is utilized to provide services to approximately 1,077,858 citizens.

### Common Client Area

The Common Client Area is a centralized repository for personal information that identifies an individual/client. Each newborn/client is assigned a unique Departmental Client Number (DCN), which is used by DSS, DHSS, DMH, Missouri Juvenile Justice Information System (MOJJIS), the Electronic Benefit Transfer (EBT) and MMIS vendors. The DCN allows multiple agencies to easily track and coordinate services.



## Medicaid Management Information Systems (MMIS)

MMIS is the State's contracted (WiPro and ACS) mechanized claims processing and information retrieval system for Medicaid. Functions of MMIS include, but are not limited to:

- ♦ Provider Enrollment
- ♦ Claims Processing, Pricing and History
- ♦ Provider Payment
- ♦ Federal Financial and Ad Hoc Reporting
- ♦ Clinical and Pharmacy Claims Adjudication
- ♦ Prior Authorization
- ♦ Automated and manual pre-certification of Optical, DME, Radiology, and Psychology services
- ♦ Automated and manual pre-certification of inpatient services & determination of length of stay
- ♦ Automated and manual pre-certification of outpatient Radiology services performed on advanced imaging technologies
- ♦ Portal allowing providers access to Medicaid claims history and tools including e-prescription and medication possession ratio
- ♦ Personal Health Record portal for Medicaid participants
- ♦ Medication Therapy Management and Immunization Billing
- ♦ Home and Community Based Services portal and management tools

The number of claim transactions adjudicated is approximately 106.8 million for 2012.

## Family Assistance Management Information System (FAMIS)

FAMIS is an online eligibility determination system used to gather and record information from Missouri residents who apply, determining what programs and level of benefits they are eligible to receive. FAMIS manages case information for the following Family Support Division (FSD) assistance programs: Food Stamps, Temporary Assistance for Needy Families, Adult Medicaid, Family Medicaid and Child Care. The FAMIS system integrates eligibility determinations and processing for Missouri's public assistance programs into a single system. FAMIS provides efficiency and reduces the burden on the FSD eligibility specialists as they only have to enter information into one system to simultaneously determine eligibility for many programs for a client. The system reduces error rates, saving the state money and ensuring public assistance recipients receive the correct benefit levels. FAMIS application development and maintenance occurs on multiple platforms. Most of the application resides on the mainframe (COBOL and Advantage) platform, but some new functionality has been developed using the .NET framework on a server platform. The FAMIS application processed 663,278 different eligibility determinations during October 2012. This number represents the total number of eligibility determinations for all programs (i.e., Food Stamps, Temporary Assistance, Medicaid, etc.). Therefore, FAMIS processes approximately 20,000 determinations per day or 5,220,000 eligibility determinations per year.



# Accomplishments

## Missouri Medicaid Audit & Compliance (MMAC) Website

The MMAC website helps the public and healthcare partners report and prevent Medicaid fraud in Missouri.

## Employer Subsystem Improvements

Major improvements to the Employer Subsystem within MACSS, making the computer program more efficient, has resulted in a savings of approximately \$1,000 per day in CPU costs.

## Child Support Applications

The On-Line Child Support Application is a “smart” application allowing individuals to apply for child support services in Missouri. It also offers them the opportunity to attach supporting documentation with their electronic application, thereby eliminating the expense and time of mailing or hand carrying documents to the appropriate Child Support office. Over 6,000 online applications were submitted in the first six months.

## Food Stamps Applications

Three separate food stamps projects helped automate formerly inefficient processes. An eligibility tool was developed so that people can self-assess their eligibility for food stamps. If they decided to apply for food stamps after the assessment, data entered in the eligibility tool is passed to a new online Food Stamp application. Participants check status, report changes and send recertification applications. The new online Food Stamp application now receives as many as 5,900 online applicants per month. This new application saves the cost of paper, printing and mailing, and 2,500 DSS employees are saving time on handling, data entry and data errors. Additionally, disaster food stamp applications may now be submitted online. The new applications have eliminated duplicate issuance of benefits and has shortened the process time.

## Human Trafficking System

A Human Trafficking system allows law enforcement agencies throughout Missouri to report incidents of human trafficking. Law enforcement officers will enter information related to the incident (trafficking type, location, victim information, etc.) via the web application and submit the information to the DSS. DSS will use the information to gather statistics and/or reach out to those victims and provide any services/assistance that may be needed.



## MO Heart Gallery Website

The MO Heart Gallery Website generates awareness for Missouri’s adoption programs across the state and helps match foster children with prospective parents in addition to educating the public on the benefits of foster care/adoption.



### **Managed Care Online Enrollment System**

A new system allows Medicaid beneficiaries required to participate in the Managed Care program to enroll online. The Managed Care program enrolls Medicaid recipients in health insurance plans instead of enrolling them in fee-for-service Medicaid. Prior to this new system, beneficiaries were required to complete these tasks via the enrollment broker's call center or by mail. The system was implemented on October 22, 2012 and allows beneficiaries to choose an insurance plan and primary care physician, report third party insurance coverage and complete their health assessment online. There are approximately 420,000 beneficiaries in the Managed Care Program and the online enrollment process is anticipated to reduce the enrollment broker's call center traffic and work load substantially, especially during annual enrollment when the entire population must complete the process in a 30-day period.

### **Summer Electronic Benefits Transfer for Children (SEBTC)**

The SEBTC process was automated to interact with the existing FAMIS application. A goal of the SEBTC program is the quicker and more efficient matching of FSD clients with SEBTC participants and to automate the benefit issuance. In the 2011 project grant year, 2500 children were matched manually by one person and it took several months to complete the process. The assigned DSS/SEBTC resource had to make a new case for participants who were not receiving FSD benefits and also had to add benefits to the EBT cards manually each month of the benefit period. For 2012, the number of children increased to 10,600. Automation allowed the project to meet Federal deadlines and be able to serve all 10,600 children in an efficient and effective manner. FAMIS added benefits to the EBT cards for each month of the benefit period (partial May, June, July and partial August) in 2012.

### **Money Follows the Person (MFP) System**

MFP helps States rebalance their long-term care systems to transition people with Medicaid from nursing homes and other institutions to the community. The program's goal is to decrease the number of people being cared for in institutions by increasing the availability of home and community based services (HCBS).

MFP required development of a system that allows institutions to enter referrals (Section Q Referral) for patients that are candidates that could transition into the community and live independently. This system has allowed transition coordinators across the state to do case management for the MFP grant. This benefits both the coordinators and staff in the central office who must provide CMS reporting semi-annually. Prior to the implementation of this system, information was handled through a paper process. The system also benefits the participants of the program for a more timely move into the community.

### **Online Invoice for Residential Treatment and Children's Treatment Services**

This new system allows providers to register online if they wish to receive their service authorization letters and invoices online, and allows the providers to submit their invoices and all supporting documentation online to the appropriate county office for approval and payment. The appropriate worker(s) are

immediately notified of the availability of a new invoice pending their review. Prior to implementation, facilities were mailed their service authorization letters and invoices which were then filled out and mailed back along with supporting documentation to State County Offices for entry into the FACES application.

## Projects

### Bundled Claims Payment Initiative

The bundled payment initiative links payments for multiple services during an episode of care (e.g. for a surgical procedure, there will be one payment to cover the surgeon, anesthesiologist, medications and other charges instead of multiple payments for various services and items). Changes in Medicare billing practices impact how the state processes Medicaid provider payments for cross-over claims. MMIS must be modified to handle these mandated changes.

### Eligibility and Enrollment System for Public Assistance Programs

The U.S. Department of Health and Human Services has established seven conditions and standards for Medicaid IT systems:

- 1) Modularity Standard
- 2) Medicaid Information Technology Architecture (MITA) compliance
- 3) Industry Standards Condition
- 4) Leverage Condition
- 5) Business Results Condition
- 6) Reporting Condition
- 7) Interoperability Condition

FAMIS, like most states' Medicaid eligibility and enrollment systems, do not meet most of the new standards which are intended to promote implementation of systems built on service oriented architecture (SOA) platforms with components and rules sets that can be shared with other states and systems.

A new eligibility and enrollment system should provide a 21st century user experience allowing citizens to apply via the Internet, have eligibility determined and receive a benefit in a single 20 minute session. It should also support other human services programs such as Temporary Assistance, Child Care Assistance and Food Stamps.

A new system would increase productivity for state employees, reduce processing times, increase flexibility of the system and ensure the sustainability of the system.

## Office Vision Replacement

The IBM Displaywrite/370 forms generation product used by the Missouri Automated Child Support System (MACSS) is obsolete and no longer supported. The Adobe Livecycle product is being implemented to replace it.

## Temporary Assistance (TA) Drug Testing

MO House Bill 73 mandates that DSS develop a drug screening program for applicants and recipients of Temporary Assistance for Needy Families (TANF) program benefits, and test each individual who is otherwise eligible and who the agency has reasonable cause. To administer the program, the existing FAMIS/TA eligibility system is being enhanced.



### Medical Assistance Spenddown

The Medical Assistance Spenddown (MASD) provides Medicaid coverage to individuals that are disabled or over age 65 and have income over 85% of the Federal Poverty Level. Spenddown works like a monthly deductible. The first day of the month a claimant's medical expenses equal or exceed their income amount that exceeds 85% of poverty, they are "locked in" to Medicaid coverage from that day until the end of the month. Claimants also have the option of paying a premium equal to their spenddown amount to have coverage for the entire month. MMIS system enhancements are required to automatically track medical expenses and start "lock-in" when spenddown is met. This is a manual process today.



### Pharmacy Tax

Missouri charges a 1.82% pharmacy provider tax to pharmacies issuing prescriptions under Medicaid. The Pharmacy Tax System currently runs on a MySQL database with a Delphi front end. The new application is part of a MMIS (WiPro) modernization effort and is being developed as a .Net application using a DB2 relational database. The rewrite of the system will automate many functions that are currently a manual process. Processes that will be automated include generation of notices of tax assessment amounts, generation of affidavits to be completed by pharmacists, automatic generation of reports that are now manually produced every 2 weeks, and processing PAC data.